A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Incorporating *International Commerce*

MAY 3, 1971

Commerce Today

Coming Developments in Business and Technology

'It's Good Business' To Hire Viet Veterans

FROM THE SECRETARY

Textiles, The Pipeline And Mainland China

(This column was written by James T. Lynn, Under Secretary of Commerce.)

Rarely in modern times has there been as much interest in matters of trade and investment exports as today.

In recent months, four national "business" issues have landed heavily on the front pages.

One of them has been partially resolved.

Other countries and we are still watching carefully the outcome on the remaining three.

Partially resolved is the question of the SST. Recently in a series of votes Congress killed further U.S. involvement in its development.

However, we must still look ahead to the question of phasing out the program, aiding affected industries and local economies, and determining air and landing rights for foreign SST operations in the United States.

The textile import problem, involving the United States and the principal exporting countries of the Far East begs even more strongly for solution.

We still look ahead for answers on whether this problem will be resolved by U.S. legislative action, or through negotiated agreements.

The question of whether the United States shall permit private industry to build the Trans-Alaska oil pipeline involves a weighing of economic factors against ecological concerns.

Secretary of Commerce Stans has pointed out many compelling reasons in favor of pipeline construction.

These include the growing needs for energy; less dependence upon foreign sources; urgently needed economic activity for Alaska; great benefits for the U.S. shipbuilding and maritime industries; unfavorable cost and ecological problems with the proposed alternative landlocked route through Canada; and development of urgently needed new sources of natural gas.

Looking ahead, the pipeline issue may yet become one of the most significant issues of the 1970s.

One of the most interesting front-page business issues is the prospect of increased trade with Mainland China (see Page 4).

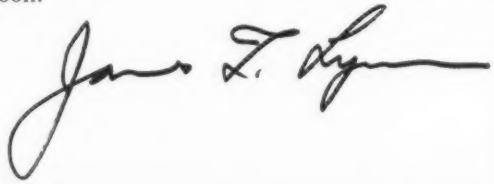
At this point, no one knows how much trade might be expected. To what degree the Chinese will respond to the U.S. initiative remains speculative.

Most of China's international trade today is with the free world—Japan, West Germany and Britain. So, given favorable developments, there could be new potentials for U.S. business.

The President has requested a list of products which could be freed for trade with China. These are now being prepared.

Where these U.S. initiatives lead us remains uncertain—but it does appear possible that within the foreign policy interests of the United States limited new opportunities may occur in the foreseeable future.

But too much should not be expected too soon.



Commerce Today

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Vol. I, No. 15 May 3, 1971

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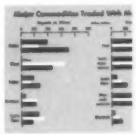
Now that the U.S. embargo on direct trade with China is lifted, a study of trading between the People's Republic of China and the free world provides American traders valuable information.



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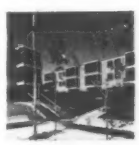

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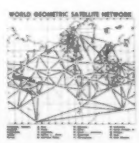

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COVER: *Many returning servicemen receive job training while serving tours of duty as these three veterans demonstrate. They can be an asset to business on their return if given the chance. The President's "Jobs For Veterans" program is campaigning to give them better opportunities.* *(See story, Page 10).*

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Published biweekly by the U.S. Department of Commerce, Washington, D.C.

Annual subscription rate $20 ($5 additional for foreign mailing, $14.30 additional for domestic air mailing). Single copy 75 cents. Make checks or money orders payable to Superintendent of Documents and mail to Superintendent, U.S. Government Printing Office, Washington, D.C. 20402, or to any U.S. Department of Commerce Field Office.

All subscription inquiries and address changes should be sent to the Superintendent of Documents, at the above address. This is the central distribution agency for U.S. Government publications.
Microfiche copy available at 95¢ per issue from National Technical Information Service, Springfield, Virginia, 22151.

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ECONOMIC
HIGHLIGHTS

Interest Rate Drop, Mortgage Money Flows May Boost Homebuilding To All-Time Peak

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

A major expansion has been under way in homebuilding for more than a year, and the continuing surge of funds into the mortgage market is likely to provide enough fuel to boost the industry to its greatest year. Prospects are bright in most sectors of the economy and the outlook for housing is the brightest of all.

All of the basic ingredients needed to build two million new homes this year are at hand. Demand is strong, labor and materials are available and, most important, mortgage credit is plentiful and at reduced rates. A two million level for housing starts would be slightly higher than the previous peak year of 1950.

Housing starts were at an annual rate of 1.8 million in the first quarter, a 43 percent jump over the first quarter of 1970. The upswing has occurred in all regions and in both single-family and multi-family dwellings.

Despite the sharp rise, home construction has not yet caught up with demand, as indicated by the absence of any buildup in the inventory of vacant housing. While sales of new single-family homes have increased 50 percent over the past year, the number of new unsold homes on the market has not increased. Correspondingly, vacancy rates for rental housing have remained far below the level of the early 1960s.

With the underlying demand for housing strong, the major determinant of the level of housing activity is the availability of money to finance both construction and purchases. The amount of funds committed to mortgages by savings institutions rose from an annual rate of $12 billion in the last quarter of 1969 to an estimated $30 billion in the first quarter of this year. And even this sharp rise in commitments has not kept pace with the surging flow of savings into these institutions. The net inflow rose to almost a $50 billion annual rate in the first quarter of this year.

The cost of mortgage money has declined dramatically in recent months. The yield on FHA-insured home mortgages in the secondary market dropped from 9.3 percent in February 1970, to 7.4 percent in March 1971. As an indication that it may drop further, some institutions have been offering rates as low as 6.75 percent on some types of mortgages.

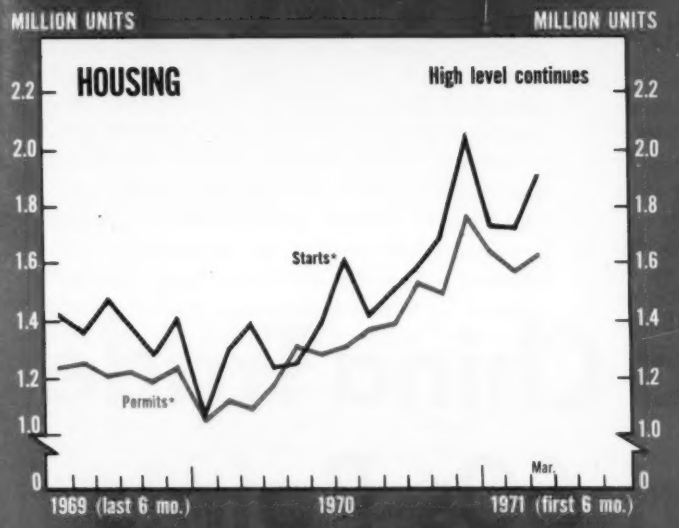
The expansion in housing starts has far-reaching implications for a wide range of economic activity. The units started in recent months, for example, will continue to provide economic impetus for some time to come. As housing starts increase, more building materials are sold, jobs are created, wages and profits rise, more taxes are paid, and all of this feeds back into the economy. Furthermore, housing leads to other construction, as the demand rises for streets, sewage disposal facilities, utilities, schools, stores, etc. An equally important effect is the demand created for household furnishings and appliances.

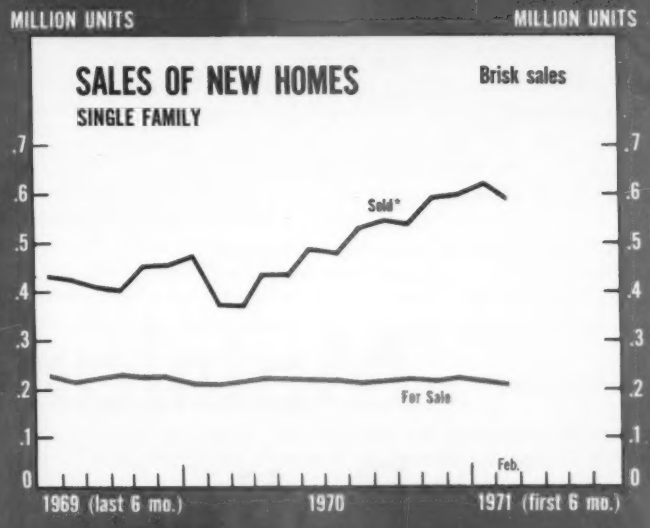
Other current developments

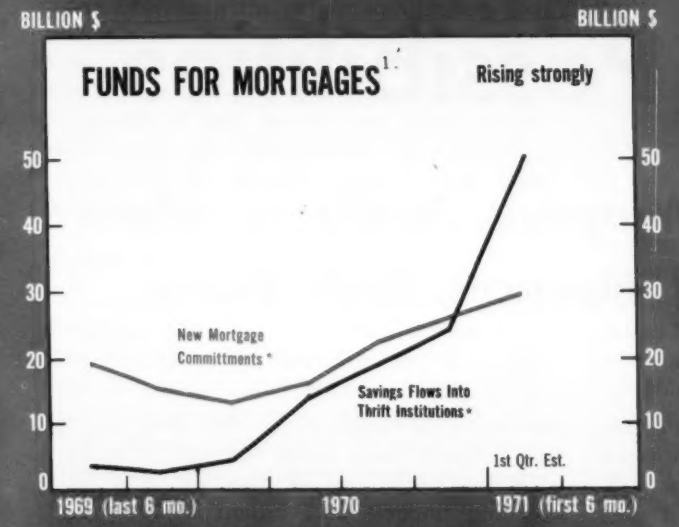
Declining mortgage rates have been reflected in the Consumer Price Index in recent months. The pace of inflation in consumer prices in the first quarter of 1971 was the lowest in four years.

Consumer spending has strengthened in recent weeks as indicated by rising retail sales. Easter week sales in 1971 were more than 10 percent higher than in Easter week of 1970 and 1969.

Latest Indicators







*Annual rates.

1 Savings flows are to savings and loan associations and mutual savings banks. Commitments are those made by S&L's and New York State mutual savings banks.

New homes for sale, the mortgage interest rate, and weekly retail sales are not seasonally adjusted.

Commerce Today
May 3, 1971
Vol. I, No. 15

Mainland China Trade Pattern In 60s Points To Sales Possibilities

Machinery, Crude Materials, Fertilizers, Wheat Were In Free-World Shipments, Study Shows

Study of trade between the People's Republic of China and the free world during the past decade gives U.S. traders a clue as to what patterns of commerce may result in the 1970s now that the U.S. overall embargo on direct trade with the China mainland has been lifted.

President Nixon on April 14 ended a prohibition on such trade that had been in effect since December 1950. His action, affecting non-strategic exports, also encompasses a relaxation of the strict license control on imports from Mainland China that has been exercised by the U.S. Treasury Department since that time.

This report provides information on trade between Mainland China and the free world during the 1960s, both as to types of goods shipped and the various countries that have sent or received the goods.

Trade between the free world and the People's Republic grew in the last decade at about the same fast pace as trade among free-world countries. Since 1960, free world-China trade more than doubled in value, with free-world exports reaching $1.4 billion and imports $1.7 billion in 1969. At these levels, this trade remained a minor fraction of the world's total.

Influenced primarily by the internal demand and supply situation, trade with China

The accompanying article on Free World-Mainland China trade, with chart and tables, was prepared by the International Trade Analysis Division of the Commerce Department's Bureau of International Commerce. The economic profile, chronological review of U.S. Government actions affecting this trade, and the list of the People's Republic foreign trade corporations on Page 37 were prepared by BIC's Eastern Europe Division. (See also, "From the Secretary," inside front cover.)

fluctuated considerably during the decade. Rising to a peak in 1966, the flow of free-world goods dropped for a couple of years, then picked up again in 1969. From incomplete data for 1970, it appears that there was some further expansion in exports last year but minimal gains in free-world imports.

A comparison of free-world export and import values for the decade of the 60s, after adjustment for freight and insurance, indicates that China has been able in most years to earn a certain amount of foreign exchange from this trade since free-world imports from China have exceeded exports by an estimated $100-$250 million annually.

In the absence of long-term credit from the free world in recent years, China has been forced to trade largely on a cash, short-term, or barter basis. The other most important limitations to further widening of trade have been the export and import control policies of developed free-world countries, and China's inability to earn more foreign exchange by offering a wide variety of goods readily marketable both in the developing countries and in the industrial world, where import demand has been strongest.

Trade limited in scope

Compared with that of other communist countries, China's trade with the free world was limited in the 60s with regard to both trading partners and types of commodities. Its trading partners were relatively few. Hong Kong, Singapore, Japan, Germany, and the United Kingdom were the major purchasers. The principal suppliers included the last three listed countries, Australia, and Canada. The main impetus behind the expansion in this trade was the pressing need in China for technologically advanced machinery, industrial raw materials, fertilizers, and wheat. In exchange, the free world obtained primarily crude agricultural materials, textiles, and foodstuffs.

The developed countries as a group strongly dominated the list of free-world suppliers to China throughout the decade, accounting for 80 percent of total exports in 1969. Japan's trade exceeded that of any other economically advanced nation, both in value and in growth during the decade. That country delivered only negligible amounts of goods to China in 1960, following a break in trade relations between the two countries in 1958. However, following a new semi-official agreement in 1963, shipments moved strongly upward, and by 1969 exports had climbed to nearly $400 million. As a result, the Japanese share of free-world exports to China accounted for more than a fourth of the total.

Although in 1969 Western Europe's sales to China were about $100 million, or 25 percent, more in value than in 1960, the nations in that area were relatively far less important suppliers by the end of the decade. Only the Federal Republic of Germany registered a sizable gain in shipments, and that was relatively less than the expansion in all free-world exports to China. In addition to Germany, major European suppliers were Britain, Italy, and France.

Following a series of serious crop failures in 1959-61, China turned to Canada and Australia for supplies of wheat. Argentina and France also figured prominently in this trade in 1964-66.

As the trade of Japan, Canada, Australia, and, to a lesser extent, Europe grew through the decade, the importance of the developing countries as exporters to China declined. The goods that these nations offered, usually raw materials, either tended to compete with domestically produced Chinese goods or to face a relatively inelastic demand. A large

U.S.-Mainland China Trade Relations

A chronological review of the chief U.S. Government actions affecting trade relations with the People's Republic of China from 1950 to the present is presented below:

December 1950: U.S. trade with Mainland China prohibited.

July 1969: U.S. policy modified to allow U.S. tourists to return with up to $100 worth of Mainland Chinese goods.

December 1969: $100 ceiling removed on non-commercial goods brought into the U.S. by individuals and non-profit institutions. Foreign subsidiaries of U.S. firms allowed to conduct non-strategic trade with Mainland China.

April 1970: American-made components of foreign-made, non-strategic goods allowed to be shipped to People's Republic.

August 1970: Bunkering of Free-World ships carrying non-strategic cargoes with non-U.S.-origin petroleum products authorized.

April 1971: President announced that changes will be made to permit certain types of direct trade and other contacts between peoples of U.S. and Mainland China. Steps now being taken to—

- Expedite visas for visitors from People's Republic.
- Relax controls on use of dollars in current transactions.
- Permit fueling by U.S. firms of Chinese carriers except those bound to or from North Viet-Nam, North Korea, or Cuba.
- Relax controls on carrying Chinese cargoes and permit U.S.-owned foreign flag carriers to visit Mainland China ports.
- Permit limited direct trade—which could include both designated imports and certain non-strategic exports.

Trade Of Free World With Mainland China

Millions of dollars

Year	Free-world exports	Free-world imports
1950	446	535
1951	446	525
1952	272	368
1953	287	433
1954	293	380
1955	317	487
1956	434	641
1957	528	624
1958	767	756
1959	651	698
1960	637	767
1961	647	644
1962	589	693
1963	732	849
1964	964	1,157
1965	1,252	1,409
1966	1,422	1,804
1967	1,410	1,656
1968	1,286	1,603
1969	1,366	1,656

Note: Excluding trade of Cuba.

part of the developing area shipments came from other countries in the Far East, notably Ceylon, Singapore, and Malaysia, all three of which supplied substantial amounts of crude rubber. Hong Kong provided almost no direct exports to China, though there were some reexports. The Near East and Africa remained only minor suppliers as did Latin American countries, with the occasional exception of Argentina.

Unlike Eastern Europe, the trade of the People's Republic of China has not been ruled by a strict bilateral balancing of trade. Certain countries which have been major suppliers—the grain exporters, for example —buy very little, while principal purchasers such as Hong Kong or Singapore are minor sellers to China.

Importers change little

The distribution of imports remained relatively stable throughout the decade. The developing nations, overwhelmingly Hong Kong and others of the Far East, took around 60 percent of total free-world imports in most years. Although the developed countries' share as a group did not change, a shift occurred as Japan's imports climbed sharply following the resumption of trade, while those of Western Europe were only moderately expansive. As with exports, Britain, Germany, France, and Italy were the largest European purchasers. The grain exporters absorbed a minor but slowly expanding amount of Chinese goods.

In most years, Hong Kong accounted for nearly half of the imports from China moving into developing areas which totaled $1 billion in 1969. While depending on the mainland for a major portion of its vital supplies of food, industrial supplies, and certain consumer goods, it also served as an important transshipment point for products of Chinese origin. Fast becoming an entrepot in its own right, Singapore emerged in this period as a rapidly growing importer of Chinese goods.

Manufactures top exports

In 1969, manufactured products, primarily metals and chemical fertilizers, comprised three-fifths of free-world exports to China. Wheat, rubber, and textile fibers made up virtually all the remainder. These same commodities, with the notable exception of wheat, were the principal products sold at the beginning of the decade.

In 1961, severe food shortages in China triggered marked shifts in the flow of goods. Grain and other food shipments surged from negligible levels to over $300 million, or nearly half of free-world deliveries to the area. With China thus compelled to reallocate its limited foreign exchange resources, shipments of manufactured goods fell in value by nearly one-half and crude materials by around one-third.

As agricultural production returned to more normal levels, free-world exports tended to move toward their pre-1961 composition, though food continued to play a greater role than it had in the previous decade.

In the early sixties, wheat and wheat flour had emerged as the single largest commodity in free-world exports to China. Sales expanded rapidly to reach highs of over $300 million during 1964-66 but declined irregularly in succeeding years, falling to $230 million in 1969. Initially, China's pressing need for wheat from outside sources had stemmed from a series of poor harvests. Although trending downward, Chinese demand remained substantial even after the agricultural crisis faded as imported wheat was increasingly used to supply the urban coastal areas.

During their peak years, shipments to

China accounted for more than one-tenth of world trade in wheat. Despite their magnitude, however, free-world deliveries represented only a small proportion of Chinese wheat consumption. Canada and Australia have consistently commanded the lion's share of these exports. In certain years, Argentina and France also shipped significant quantities.

The renewed effort to increase Chinese agricultural production created a growing demand for chemical fertilizers. Free-world sales of these products peaked in value in 1968, then declined somewhat the following year. Manufactured nitrogenous fertilizers were overwhelmingly the most important throughout most of the period. Japan regularly supplied the bulk of these products and the Netherlands and Italy virtually all the remainder. During this period, China assumed key importance in the growth of the Japanese chemical industry as it absorbed one-third or more of Japan's exports of urea and an important part of its sales of other nitrogenous fertilizers, especially ammonium sulfate.

In 1969 metals of various types shipped by the free world to China totaled about $400 million, over half of which was steel products. Sales of steel had picked up sharply when the new Chinese expansionary drive began in the mid-sixties. Rising rapidly in 1966 and 1967, deliveries of plates, bars, rods, seamless pipe, and other steel leveled off in subsequent years at around $225 million. Japan supplied the largest share of these products and Germany most of the balance.

Exports of nonferrous metals more than doubled in value in the decade. The rise was especially sharp in platinum in 1968 and 1969. Shipments of copper grew more slowly, but remained the single most important nonferrous metal sold to the Chinese. Germany and the United Kingdom were the major exporters of both metals.

Sales of machinery to China continued to be limited by demand from that country and also by strategic controls in many free-world nations, some of which were relaxed in the course of the decade. Of all the main components of free-world sales, machinery was probably the most affected by the autarkic direction taken by the Chinese in their 1966-70 Five Year Plan. After the middle years of the 60s when exports of machinery averaged five times the value from 1960-63, deliveries fell precipitously. As a basic means of production, machine tools were the least influenced immediately by these developments. Although shipments declined in 1968 and again in 1969, in the latter year they were double the 1960 value. Italy outsold other suppliers at the end of the decade, replacing Germany and Switzerland as China's leading sources of imported machine tools.

China provided a good market between 1965 and 1967 for various types of machinery. The United Kingdom and Germany sold considerable amounts of textile machinery in those years; Germany, France, and Japan marketed engines and other power-generating equipment; Japan and Italy shipped construction and mining machinery. But by the

Economic Profile—Mainland China

Government: The People's Republic of China (Mainland China) is a communist government structurally similar to that of the Soviet Union. Political power resides with the Communist Party. Ruler and Chairman of Central Committee of Communist Party, Mao Tse-Tung; Premier, Chou En-lai.

Geography: Area, about 3.7 million square miles—about the same as the United States, including Alaska and Hawaii—mostly mountainous or hilly; a little over 10 percent is cultivated. Although most of area lies in temperate zone, climate varies from subtropical in south to subarctic in north.

Income: Estimated gross national product in 1970, $80 billion. Estimated per capita GNP, about $100.

Population: Estimated at 750-850 million, mid-1970. Non-Chinese, about 45-50 million. About 85 percent of population is rural. Labor force estimated at 380-430 million, of which some 323-366 million are in agriculture. Capital, Peking; estimated population, 7 million.

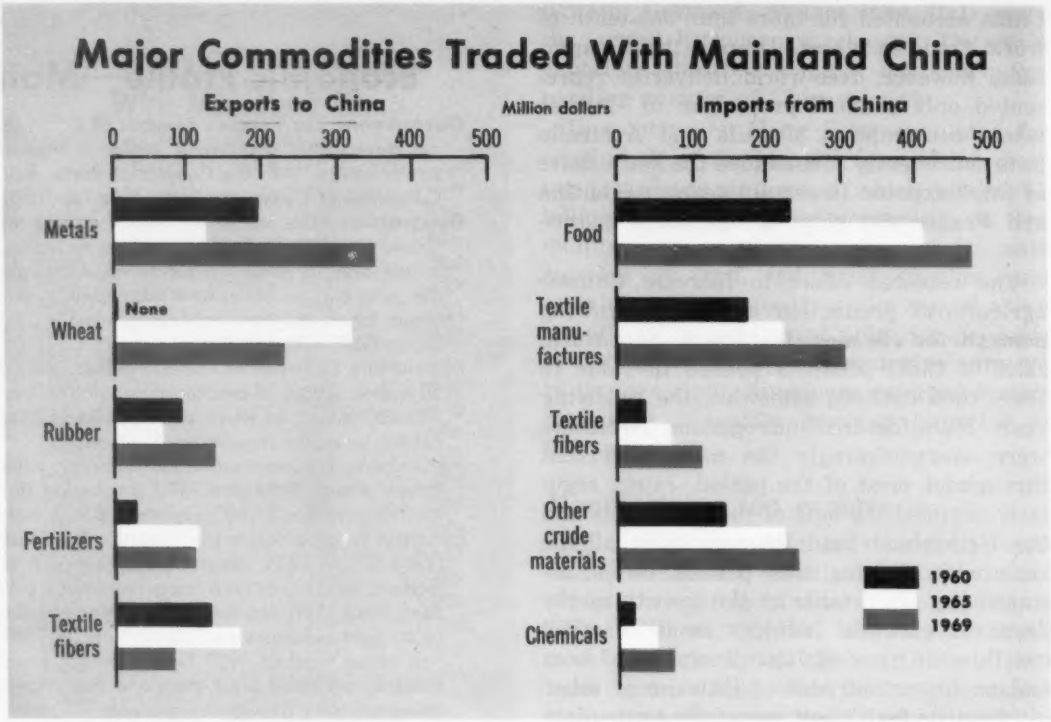
Agriculture: Predominant in the economy. Principal edible crops: rice, potatoes, wheat. Estimated 1970 production (in thousand metric tons): rice, 95,000; potatoes, 27,000; soybeans, 6,900; cotton, 1,500.

Industry: Progress was made toward industrialization during first 5-year plan (1953-57). In 1958, program was launched to accelerate development of modern, heavy industrial base; however, by 1960 failure had become evident. Since 1960, economy has been undergoing adjustment toward emphasis on light industries and agriculture. In 1963, total industrial production had about reached 1957 level. Cultural Revolution of 1966-68, however, seriously disrupted production and industrialization. Attempt at more balanced economic growth now evident.

Estimated production in 1969 of selected items: crude steel, 16 million metric tons; pig iron and ferroalloys, 42 million tons; coal, coke and lignite, 350 million tons; electric power, 50 billion kw.-hr.; cement, 15 million tons; chemical fertilizers, 14 million tons; cotton cloth, 8.5 billion linear meters.

Finance: Official currency is the Renminbi. Generally accepted conversion rate in trade with free world, 2.46 Renminbi to $1. Entire banking system is nationalized.

Foreign trade: Foreign trade is a government monopoly. Total 1969 foreign trade turnover, $3.9 billion—exports $2.1 billion, imports $1.8 billion. Principal imports, wheat grains, chemical fertilizers, iron and steel, non-ferrous metals; principal exports, textiles and food products. European Soviet-bloc countries' share in Mainland China's total trade decreased throughout 1960s, but recently has begun to show signs of upward trend. In 1969, about 80 percent of Mainland China's total trade was with free-world countries, principally Japan, Hong Kong, West Germany, Britain.



end of the decade, only minor quantities of these machines were being exported. The Chinese market for electric measuring and controlling instruments held up somewhat better. Japan and Britain provided the bulk of free-world shipments of such products.

In 1969, the major types of machinery shipped by the free world to the People's Republic of China were machine tools, ball bearings, and pumps. These and small exports of various other lines nevertheless totaled only $79 million.

The only other manufactured export of sizable value shipped from free-world countries was organic chemicals other than urea which advanced in value each year from 1960. Main suppliers of these organics, which reached $70 million in 1969, were Japan, Germany, and Italy.

Crude rubber occupied an important place among free-world exports to China in the 60s. After fluctuating widely from year to year, shipments climbed sharply in value in 1969—to $140 million—partly because of a considerable increase in price. Singapore, Malaysia, and Ceylon were the top suppliers.

China continued in the 60s to be dependent on sizable amounts of imported fibers for its textile industry. Cotton deliveries reached a record value in 1965 of over $100 million, then dropped precipitously to $45 million in both 1968 and 1969. Pakistan was usually the major supplier, though in some years Syria, Egypt, or the Sudan were the largest sellers. Wool and manmade fibers also were principal free-world exports to China. Nevertheless, the relative importance of these fibers, together with cotton, declined in the decade from about 20 percent to only 6 percent of total exports to China.

Food highlights imports

The rate of growth in free-world imports of Chinese goods in the last decade was about the same as that recorded for exports. Unlike exports, however, imports changed little in composition throughout the entire period. Although Chinese food shortages in the opening years of the decade reduced quantities available to foreign purchasers, imports reverted to their traditional pattern within two or three years and remained stable thereafter. In 1969, food and crude materials, largely of animal or vegetable origin, made up about half of the total. Textiles of all types accounted for nearly 20 percent, and other manufactures most of the balance.

By far the major purchaser of Chinese goods was Hong Kong. That island, situated just off the mainland, is heavily dependent on China for vital foods and other selected products. Both at the beginning and end of

the decade Hong Kong took just over 25 percent of free-world imports from China. Approximately half of Hong Kong's imports totaling $446 million in 1969 was food—fruits and vegetables, hogs, meat, rice, and fish. Textiles and clothing accounted for another 20 percent. Other major items were materials used in Hong Kong manufacture, notably human hair for wigs and various crude vegetable products. About $120 million of Hong Kong's imports from China were reexported to other countries in 1969, the major portion to Asian countries, principally Indonesia, Singapore, Japan, and Malaysia. Over half of both textiles and crude materials were transshipped, about a third of the clothing, and a quarter of the fruits and vegetables.

Although Hong Kong was consistently the major purchaser of Chinese foods, other free-world countries also found that area an important source. Ceylon was a principal purchaser of rice in most years; Morocco and Egypt took most of the green tea. Rice, fruits and vegetables, fish, and meat also moved in substantial quantities to Japan.

Accounting for about one-fifth of total free-world purchases from China, imports of crude materials rose to more than $350 million in 1969. The single most important of these items was raw silk. Italy, itself a leading silk producer and a major manufacturer of silk fabrics, was consistently the chief buyer, but Japan and France imported substantial amounts. Also, China supplied sizable quantities of cashmere and wool.

Imports of soybeans trended downward after 1967, but remained one of the largest crude materials. As the world's leading importer of soybeans, Japan took the major share of the supply, with the remainder generally going to Finland and Italy. Other oilseeds, vegetable and animal raw products, hides and skins, and tungsten ores accounted for the bulk of the remaining crude materials purchased by the free world.

Textile yarns, fabrics, and clothing represented the third largest group of products among free-world imports from the People's Republic of China. Hong Kong took about 30 percent of the $300 million total in 1969.

Although their growth was limited, cotton fabrics remained the leading component of these purchases. In addition to Hong Kong and Singapore, Australia, Nigeria, Sudan, and the United Kingdom took sizable quantities. Imports of clothing were only half as large as cotton fabric imports, but advanced rapidly in the decade. In contrast to other types, silk textiles moved primarily to Japan and Italy in recent years.

Two other types of goods provided by Mainland China to free-world countries were consumer products, imported mainly by Southeast Asian countries, and semimanufactures. Few of the consumer goods were of large value separately, but together they totaled more than $100 million in 1969. The major items were footwear, toys, glassware and pottery, and metal products such as handtools and household equipment. Among the semimanufactures, various types of chemicals—notably organic and inorganic elements and compounds, pharmaceuticals, and essential oils—were imported at a value of $75 million. Hides and skins, furs, and paper products were other significant items making up an additional $75 million.

—Bureau of International Commerce

At deadline for this issue, detailed regulations governing direct U.S.-Mainland China trade were still being developed. For information on the trade and economy of Mainland China, contact Eastern Europe Division, BIC-898, and on U.S. regulations covering export of specific commodities or technical data, Office of Export Control, BIC-840, both at the U.S. Department of Commerce, Washington, D.C. 20230; for regulations on imports from Mainland China, contact Office of Foreign Assets Control, Treasury Department, Washington, D.C. 20220.

Major Traders With Mainland China

Millions of dollars

Country	Exports			Imports		
	1960	1965	1969	1960	1965	1969
Free world, total	**637**	**1,252**	**1,366**	**767**	**1,409**	**1,656**
Asia:						
Japan	3	245	391	21	225	235
Hong Kong	2	3	1	208	406	445
Singapore	28	7	57	57	106	137
Malaysia			45			57
Ceylon	25	36	40	28	24	47
Australia	23	164	119	10	26	35
Canada	9	98	113	6	13	25
Europe:						
Germany, Fed. Rep.	95	79	158	69	73	88
United Kingdom	90	72	131	69	83	91
Italy	40	56	56	24	38	64
France	53	60	44	23	44	76

Note: Excluding trade of Cuba.

Hire A Viet Veteran—'He's An Asset'

Returning Servicemen Offer A Rare Blend Of Youth And Maturity To U.S. Businesses

He's young. He has just finished doing a job for his country, and come home to start a new life—only to find himself on the unemployment rolls.

More than 80,000 separating servicemen and women are pouring back into the country each month (more than 1 million a year); some will return to school, but many need jobs.

"It's good business to hire veterans," says Donald J. Byrne, Assistant Vice President of Bankers Trust Company in New York City.

Byrne, who is in charge of the Bankers Trust Company program for hiring returned veterans, explained that his company has had such a program in force since 1968. "We actively recruit these veterans," he said. "In fact, we advertise for them in all of the military papers, even before they are separated from the Armed Forces."

Bankers Trust hires at least 600 ex-GIs each year. Not, according to Byrne, just because they are veterans, but because of their abilities. "Their service years have given them a maturing process." And he added, "All of them have had some experience which can be either directly or indirectly related to the jobs in which we place them."

The other way around

Included on the Bankers Trust payroll are 150 disabled veterans. "People tend to look at disabilities and to overlook the abilities," Byrne said. "At Bankers Trust, we've been looking at it the other way around, and have discovered a valuable company asset in disabled employees."

Bankers Trust is a strong supporter of the President's Jobs For Veterans Program, put in motion last October, with James F. Oates,

Jr., Chicago lawyer and former chairman of the board of Equitable Life Assurance Society, at its head.

In its four months of national activity, Jobs For Veterans can point to 38 States, 241 cities and the District of Columbia which have active programs to publicize the jobless situation of Vietnam veterans and are doing something about it.

President Nixon, just last month, again voiced his concern for these men.

Said the President, "We owe these men a debt of gratitude for their service—but we also owe them something more. We owe them an extra measure of help in making the difficult transition back to civilian life."

This help is beginning to come from the aggressive Task Forces throughout the Nation, which are teams of business, labor, service organizations and government officials working under guidelines of the Jobs For Veterans staff to help the veterans find jobs, job-training programs or the further education they need to fulfill potentials as civilians.

Seek them out

The Jobs For Veterans Program has as its objectives making the Nation aware of the veteran as a job candidate, fully utilizing existing programs which link the veteran with jobs and training, stimulating the formation of action groups to marshal the available sources of help for the veterans, and encouraging public and private employers to actively seek out and hire or train veterans.

On its staff are representatives of Federal agencies who are interested in helping the veterans reach their goals, including officials from the Veterans Administration, the Department of Labor, the Department of Defense, and the Department of Commerce. Some businesses, such as du Pont Company and Equitable Life, believe in the program to the extent of loaning their own company experts as staff members.

If its success could be measured in terms of the growing awareness of the United States to the plight of the men recently separated from the Armed Forces, the program could already be said to have done its job.

But, as pointed out by its Executive Director, Captain Richard C. Maurer, of the U.S. Navy, "More servicemen are being discharged from the Armed Forces every month. They

WHAT'S THEIR FUTURE?—*The next stop may be home, but what happens then is the question. Jobs For Veterans helps reduce the unemployment rate of ex-GIs, which is above the national average.*

will still be coming out of the service three months from now, six months from now, a year from now. We've got to help them find their place in the economy."

And just because the Nation is aware of the drab veteran job situation doesn't mean they can immediately find training or jobs.

Today there are nearly twice as many unemployed Vietnam veterans as there were a year ago. Malcolm R. Lovell, Jr., Assistant Secretary of Labor for Manpower has cited the figure at 372,000 jobless veterans in the 20-29 year age bracket. This was the average number of unemployed veterans in this age group for the three-month period ending in March.

The unemployment rate for these veterans averaged 10.8 percent for the three-month period—up from 6.8 percent a year previously. The unemployment rate for younger veterans (20-24), rose to 14.6 percent from 9.1 percent in March 1970.

Jobs For Veterans would like to see this picture reversed. Pat Hughes, the Veterans Administration representative on the JFV staff, says that many of the Task Forces set up through the program are making this happen. All over the country, the media are publicizing the drive, free of charge. Organizations, such as the American Legion, the Disabled American Veterans and the Veterans of Foreign Wars are putting on job marts and bringing potential veteran employees together with business and industry which may hire them. Task Force committees and Chambers of Commerce are holding luncheons and drives to encourage employers not only to hire the veterans but to put on-the-job-training programs in force and to include veteran employment in future plans.

AWARD FOR VETERAN HIRING—*Bankers Trust received the National Commander's Award from the Disabled American Veterans last summer for its veteran employment program. Accepting the award for the bank are Don Byrne, Assistant Vice-President, (left) and John W. Hannon, Jr., Senior Vice President. Philip Robrecht, director of employment for DAV, (center) presented the citation to the Bank.*

Enthusiasm in Houston

In Houston, for example, an enthusiastic Task Force is helping turn the tide. Headed by W. W. Bryan, retired vice president of Humble Oil and Refining Co., Roy L. Dye, Jr., general manager of Sears, Roebuck & Co., and Louie Welch, Mayor of that Texas city, this 40-man JFV committee is sponsoring numerous events to help the 6,200 Viet-nam veterans seeking work in that area. Nineteen radio stations, three television stations and five newspapers are carrying on extensive campaigns. One paper, the *Houston Post*, has offered free classified advertisements to veterans; 136 have taken advantage of these five-line ads which run for one week in the "Work Wanted" section.

The Texas Employment Commission reports a 23 percent increase in the number of veterans hired from the State Employment registry, and attributes this jump in veteran employment directly to the Jobs For Veterans drive.

A spokesman for Dye said that Sears, Roebuck & Co. in that area is hiring every veteran it can. "Veterans," said Ralph Jordan of Sears, who is also public relations director for the Houston Task Force "make good employees. The ex-draftee has been trained to be a well-ordered, thinking individual, who, with the right chance, can produce for business."

"Some veterans come out of the service already trained to step in a job. Others may need training, but there are many programs of benefit to both the veteran and his employer through the GI Bill."

Many businesses and industries are unaware of the on-the-job training benefits eligible to a veteran, under the GI Bill, when he is actually working. The Veterans Administration has published a Fact Sheet for employers which lists the requirements to be

ON-THE-JOB TRAINING—*Many veterans receive training while in service that equips them to be absorbed into businesses. All learn the discipline and acquire the maturity that produces good employees.*

HELPING HANDS—*Job fairs and counseling services, to help the Vietnam veteran find his niche as a civilian, are part of the teamwork across the country to find jobs and training for returning servicemen.*

met and explains how the program works.

Capt. Maurer said that one of the problems in helping the veteran find jobs and training lies in building communication between the ex-GI and the employers. "The best place for business to find veterans is by calling the State Employment Service or the local Veterans Administration representative, who has contact with the veteran who needs a job or training for a job."

Task Forces in states, towns

Some communication is being built by the Task Forces in the states and the towns. The United States Chamber of Commerce has just published a pamphlet for its members, advising them of the various veterans programs in existence under Federal and local governments and how to get started in helping a veteran. This booklet was written by the Jobs for Veterans Program.

Thomas P. Walsh, Director of Manpower and Poverty Programs for the Chamber, said that this booklet outlines 35 major programs available to veterans, explaining major resources, job and job training programs, education and help for the disabled veteran.

The pamphlet, "Jobs For Veterans," also lists nine Chambers of Commerce active in the veteran program at the present time.

According to Charles Daly, the Commerce Department representative at Jobs For Veterans, Commerce Business Service Offices across the Nation cooperate on programs for veteran employment daily. Working with other Federal agencies, these offices report activity such as innovative programs in San Francisco, where television stations actually picture a returned veteran, listing his qualifications and his needs to help him get a job in the slow market; blue ribbon task forces kicking off in Chicago and New York; job fairs in Baltimore and Wilmington which each report in numbers 1,000 veterans hired on the spot.

Capt. Maurer said that the Jobs For Veterans Program is now more than the catalyst which it was intended to be. "The new ideas which we report through the media and through our own newsletter are being picked up by other Task Forces across the country to promote each individual campaign. In any case, we are now, in addition, an information center, for those who want to help."

What they're all saying—en masse—is: "Hire A Viet Veteran." As Byrne repeats, "It's good business."

—Jobs For Veterans Program

The City's Future: Continued Growth But At Slower Pace

Population Count Reveals 23 New Members Of '100,000 Club', But Suburbs Grew Faster

If past performance is a valid guide to future prospects, then cities will probably continue to play a significant, though less dominant, economic role in American life.

While not entirely unexpected, the drop in the proportion of the population living in the Nation's larger cities between 1960 and the latest 1970 census figures is causing business to take a good look at its marketing plans for the future.

On the other side of the coin, in spite of this decline, 1970 data list 23 new cities as now having populations of 100,000 or more persons, bringing the total number of U.S. cities in this grouping to 153.

It's no wonder that the Census Bureau answers the question, "Are the Nation's cities growing?", by both yes and no.

A continuing trend

The 1970 census has again highlighted the fact that, despite the great population movement to the cities which continued during the 1960s, the proportion of the population living in the larger cities of 100,000 and more inhabitants dropped since the 1960 count.

Number of cities of 100,000 or over listed in the 19 U.S. decennial counts and their percentage of the Nation's total population:

Year	Cities	Percent
1790	0	0
1800	0	0
1810	1	1.7
1820	1	1.6
1830	1	1.9
1840	3	3.5
1850	6	5.8
1860	8	11.3
1870	13	10.7
1880	19	12.7
1890	27	15.6
1900	38	18.7
1910	50	22.1
1920	68	25.9
1930	93	29.6
1940	92	28.8
1950	106	29.4
1960	130	28.3
1970	153	27.6

Although the total number of people living in the larger cities was 56.1 million in 1970 compared with 50.7 million in 1960, only 27.6 percent of the total U.S. population was living in the 153 cities of 100,000 and over in 1970, compared with 28.3 percent in the 130 cities of 100,000 and over in 1960. This decline is consistent with another major finding of the census—that the action has been in the suburbs. Major increases in population since 1960 have been just outside the cities.

This pattern began some 35 years ago. Following a 1930 record high of 29.6 percent of Americans living in cities of 100,000 or over, people began moving out of many of the larger cities. By 1940 the percentage figure for Americans in cities was down to 28.8, and though it rallied a bit in 1950, it has continued to decline since.

The new census showed also that the proportion of larger cities losing population seems to be on the increase. The 1960 census reported that 43 of 130 larger cities (33.1 percent) showed population losses during 1950-60. A decade later, the 1970 census reported that 59 of the 153 larger cities (38.6 percent) had lost population during 1960-70.

Of the six largest cities, those with one million or more in population, three lost and three gained during the decade. Philadelphia recorded a loss of 2.7 percent; Chicago, 5.2 percent and Detroit, 9.5 percent. The gainers were New York, with an increase of 1.1 percent; Los Angeles, 13.5 percent; and Houston, with a sizable gain of 31.4 percent.

South leads the race

Among the four census regions, the South ranked first in the 1970 count with 52 cities in the 100,000-or-more category. Eleven of these went over the 100,000 mark during 1960-70. Florida and Virginia each brought in three. Florida's newcomers were Fort Lauderdale, Hialeah, and Hollywood. Virginia's were Alexandria, Hampton, and Virginia Beach. The other five Southern newcomers were Huntsville, Alabama; Macon, Georgia; Lexington, Kentucky; Raleigh, North Carolina; and Columbia, South Carolina. One Southern city that had been on the list in 1960—Wichita Falls, Texas, fell below 100,000 during the decade.

The North Central region came in second with 41 cities of 100,000 or more. Six were newcomers—Cedar Rapids, Iowa; Livonia and Warren, Michigan; Independence and Springfield, Missouri; and Parma, Ohio. This

THEN—*New York's old City Hall, Wall St., about 1789.*

NOW—*The old neighborhood has changed quite a bit.*

Cities Of 100,000 Inhabitants By 1970 Rank

Rank	City	Population	Rank	City	Population	Rank	City	Population
1	New York	7,367,760	52	Akron	275,425	103	Colorado Springs	135,060
2	Chicago	3,366,957	53	Tucson	262,933	104	Torrance, Cal.	134,584
3	Los Angeles	2,814,152	54	Jersey City	260,545	105	Montgomery	133,386
4	Philadelphia	1,948,609	55	Sacramento	254,413	106	Winston-Salem	132,913
5	Detroit	1,511,482	56	Austin	251,808	107	Glendale, Cal.	132,752
6	Houston	1,232,802	57	Richmond, Va.	249,621	108	Little Rock	132,483
7	Baltimore	905,759	58	Albuquerque	243,751	109	Lansing	131,546
8	Dallas	844,401	59	Dayton	243,601	110	Erie	129,231
9	Washington	756,510	60	Charlotte	241,178	111	Amarillo	127,010
10	Cleveland	750,903	61	St. Petersburg	216,232	112	Peoria	126,963
11	Indianapolis [1]	744,624	62	Corpus Christi	204,525	113	Las Vegas	125,787
12	Milwaukee	717,298	63	Yonkers	204,370	114	South Bend	125,580
13	San Francisco	715,674	64	Des Moines	200,587	115	Topeka	125,011
14	San Diego	696,769	65	Grand Rapids	197,649	116	Garden Grove, Cal.	122,524
15	San Antonio	654,153	66	Syracuse	197,208	117	Macon	122,423
16	Boston	641,071	67	Flint	193,317	118	Raleigh	121,577
17	Memphis	623,530	68	Mobile	190,026	119	Hampton, Va.	120,779
18	St. Louis	622,236	69	Shreveport	182,064	120	Springfield, Mo.	120,096
19	New Orleans	593,471	70	Warren, Mich.	179,260	121	Chattanooga	119,082
20	Phoenix	581,562	71	Providence	179,213	122	Savannah	118,349
21	Columbus, Ohio	539,677	72	Ft. Wayne	177,671	123	Berkeley	116,716
22	Seattle	530,831	73	Worcester, Mass.	176,572	124	Hunt. Beach, Cal.	115,960
23	Jacksonville [1]	528,865	74	Salt Lake City	175,885	125	Beaumont	115,919
24	Pittsburgh	520,117	75	Gary	175,415	126	Albany, N.Y.	114,873
25	Denver	514,678	76	Knoxville	174,587	127	Columbia	113,542
26	Kansas City	507,409	77	Madison	173,258	128	Pasadena	113,327
27	Atlanta	496,973	78	Virginia Beach	172,106	129	Elizabeth	112,654
28	Buffalo	462,768	79	Spokane	170,516	130	Independence	111,662
29	Cincinnati	452,524	80	Kansas City, Kan.	168,213	131	Portsmouth, Va.	110,963
30	Nashville [1]	447,877	81	Anaheim	166,701	132	Alexandria, Va.	110,938
31	San Jose	445,779	82	Fresno	165,972	133	Cedar Rapids	110,642
32	Minneapolis	434,400	83	Baton Rouge	165,963	134	Livonia, Mich.	110,109
33	Ft. Worth	393,476	84	Springfield, Mass.	163,905	135	Canton	110,053
34	Toledo	383,818	85	Hartford	158,017	136	Allentown	109,527
35	Portland, Ore.	382,619	86	Santa Ana	156,601	137	Stamford	108,798
36	Newark	382,417	87	Bridgeport	156,542	138	Lexington	108,137
37	Oklahoma City	366,481	88	Tacoma	154,581	139	Waterbury	108,033
38	Oakland	361,561	89	Columbus, Ga.	154,168	140	Hammond	107,790
39	Louisville	361,472	90	Jackson, Miss.	153,968	141	Stockton	107,644
40	Long Beach	358,633	91	Lincoln	149,518	142	Hollywood, Fla.	106,873
41	Omaha	347,328	92	Lubbock	149,101	143	Trenton	104,638
42	Miami	334,859	93	Rockford, Ill.	147,370	144	San Bernardino	104,251
43	Tulsa	331,638	94	Paterson	144,824	145	Dearborn	104,199
44	Honolulu	324,871	95	Greensboro	144,076	146	Scranton	103,564
45	El Paso	322,261	96	Riverside, Cal.	140,089	147	Camden	102,551
46	St. Paul	309,980	97	Youngstown	139,788	148	Hialeah	102,297
47	Norfolk	307,951	98	Ft. Lauderdale	139,590	149	New Bedford	101,777
48	Birmingham	300,910	99	Evansville	138,764	150	Fremont, Cal.	100,869
49	Rochester	296,233	100	Newport News	138,177	151	Duluth	100,578
50	Tampa	277,767	101	Huntsville, Ala.	137,802	152	Cambridge, Mass.	100,361
51	Wichita	276,554	102	New Haven	137,707	153	Parma, Ohio	100,216

[1] Affected by the consolidation of city and county governments.

WHICH CITY WAS SECOND?—*If you said that Baltimore, above, followed New York into the 100,000-people category, you're right. Actually, it tied New Orleans for the honor in the Census of 1840.*

region lost no cities from its 1960 listing.

The West was third with 32 cities. Of the eight newcomers, six were in California—Fremont, Garden Grove, Huntington Beach, Riverside, San Bernardino, and Stockton. The other two western cities were Colorado Springs, Colorado and Las Vegas, Nevada. The region lost no cities from its 1960 listing.

The Northeast region ranked fourth with 28 cities. One was new in the listing—Stamford, Connecticut. However, this region lost two that had qualified in 1960—Niagara Falls and Utica, New York.

Among States, California led with 20 cities of 100,000 or more. The combined population of the 20 made up 37 percent of the total 1970 count for the State. Texas came in second with 10 cities contributing 38 percent of the Lone Star State's population. Ohio was third with nine cities contributing 28 percent to its count. Florida, Michigan, and Virginia tied for fourth place. Each had seven cities of over 100,000. The Florida cities made up 25 percent of the State's population; Michigan's, 27 percent; and Virginia's, 25 percent.

Indiana, New Jersey, and New York tied for seventh place, each with six cities of 100,000 and over. Indiana's cities made up 28 percent of that State's population; New Jersey's 16 percent; and New York's 50 percent.

Eleven states in the nation in 1970 were without cities of 100,000 persons. They were Maine, New Hampshire, and Vermont in the Northeast region; North Dakota and South Dakota in the North Central region; Delaware and West Virginia in the South; Alaska, Idaho, Montana, and Wyoming in the West.

There was no city of 100,000 and over in the U.S. until the third decennial census in 1810 when New York reached that size class. It was not until 1840 that two other cities joined the listing: Baltimore and New Orleans, each with a population of 102,000. By 1850 there were three more: Boston with 137,000; Philadelphia with 121,000; and Cincinnati—due to its mounting river traffic—with 115,000.

By 1860, there were eight. St. Louis entered the listing with 161,000 and Chicago with 112,000. In this same census, New York City soared to the million mark and Philadelphia ranked second with 566,000.

Eleven no longer listed

Over the decades since 1810, 164 U.S. cities have recorded a population of 100,000 or more. Of the 11 which do not appear in the list of 153 for 1970, Massachusetts has lost four—Fall River (listed from 1900 through 1950), Lowell (listed from 1910 through 1940), Lynn (in 1930), and Sommerville (from 1930 through 1950). New York has lost two: Niagara Falls (listed in 1960 only) and Utica (listed from 1930 through 1960).

Pennsylvania has also lost two. Allegheny was listed twice—in 1890 and 1900, and Reading was listed four times—from 1920 through 1950. Wilmington, Del., entered the list in 1920 and stayed through 1950. St. Joseph, Mo., made in the list once—in 1900, and Wichita Falls, Tex. once—in 1960. —*Census Bureau*

Fish, Current Studies By Cadet-Trainees To Aid Ocean Forecasting

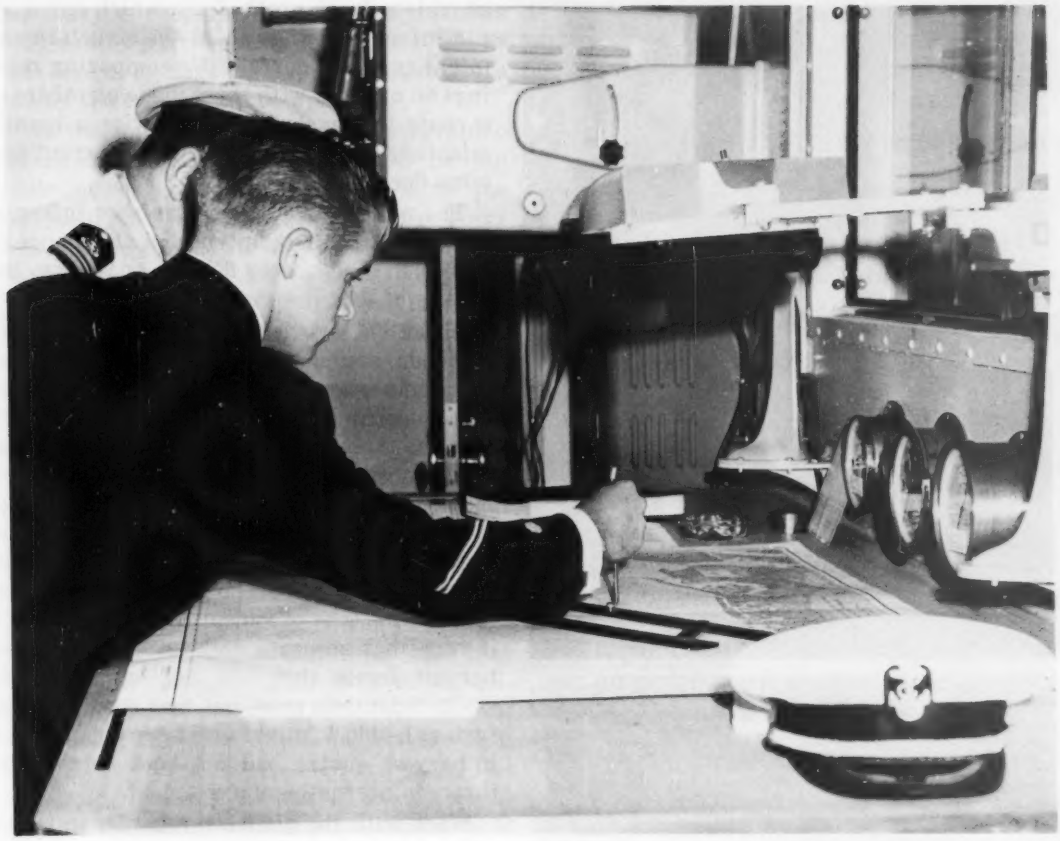
Program To Provide More Broad-Scale Research At Less Cost While Midshipmen Get 'Sea Legs'

A ship glides out to sea and knifes softly through the ruffled waters. On board are two midshipmen from the U.S. Merchant Marine Academy at Kings Point, N.Y., who are learning first hand the practical requirements of ship operations. But this time there is a difference. The midshipmen are also collecting scientific data about the sea.

Their data collection duties are part of a project developed jointly by Commerce's Maritime Administration (MarAd) and the National Oceanic and Atmospheric Administration (NOAA). Some 60 midshipmen of the Academy's second or "sea year" class have been selected or have volunteered for the work. These cadets customarily spend ten months of their second year learning at sea how to run a ship. During part of their 1971 "sea year" they will gather oceanographic information.

The midshipmen have undergone a training course, given by NOAA and Navy oceanographers, to equip them for the task. They often go on ship in two-man teams, and are given an on-ship briefing before they start. The instruction includes not only the use of equipment and how data are to be collected, but the purpose of the research, the use to be made of the information, and how it fits into the general body of world oceanographic knowledge.

Each cadet or cadet team will cruise on one of the six ships used in the program. These



SOLVING A SEA RIDDLE—*Midshipman from the U.S. Merchant Marine Academy at Kings Point, N.Y., works out a problem in navigation under the guidance of a ship's officer aboard the S. S. African Neptune of the Farrell Lines, Inc. Cadets are spending part of their 1971 "seayear" gathering ocean data.*

are U.S.-flag ships owned and operated by States Steamship Company, San Francisco; three New York City-based lines, Moore-McCormack, Farrell, and Prudential-Grace, and two New Orleans companies, Delta Steamship and Gulf and South America Steamship. The voyages will be between San Francisco and Yokohama, New York and Capetown, and New Orleans and South America. The six ships involved in the research work now have 12 cadets aboard, two for each ship, engaged in collecting data. When their cruises are completed, other cadets will board the ships, and this process will continue until the entire pool of 60 cadets has been employed in oceanographic research.

The future merchant ship officers have been trained to use several oceanographic instruments, including an expendable bathythermograph and a continuous plankton recorder.

The bathythermograph measures ocean temperatures electronically at different depths. A pin is pulled, the instrument drops into the water, plummets to the end of the line and breaks off, meanwhile relaying electronically the temperature of the water as it descends. The reason an expendable instrument is chosen is that it can be used without slowing down the ship which must be done if a recoverable device is employed. The result is that the overall cost of the work is reduced.

The plankton recorder can be towed from the ship's stern for up to five days without servicing. It captures plankton in different parts of the sea for study. Generally, plankton consist of the organisms, such as fish eggs and larvae, at the bottom of the fish food chain. Its distinctive feature is that it does not have swimming capability, and is at the mercy of the ocean currents.

The importance of the bathythermograph readings, which are to be made in coastal, continental shelf and offshore waters is that they will furnish scientists of NOAA's National Marine Fisheries Service with time

LIFE ON THE OCEAN WAVE—*Young mariner gets "on the job" training aboard a National Oceanic and Atmospheric Administration (NOAA) vessel by monitoring a console controlling a dredging winch.*

TAKING THE OCEAN'S TEMPERATURE—*The bathythermograph, a standard tool of the oceanographer, is lowered into the sea by data collectors.*

sequence information on water temperatures in major ocean current systems, enabling them to determine seasonal, year-to-year and spatial changes. The temperature recordings provide a depth profile from which scientists can infer quite a bit about the structure and intensity of the current. By comparing readings on one trip with those made on others as a route is traveled once or twice a month, scientists can determine how the current systems fluctuate.

The plankton recorder furnishes information about the distribution and abundance of basic fish food, where fish are spawning, the species of fish and the probable numbers.

A better knowledge of currents and of plankton abundance and distribution is of great importance, scientists explain, in making possible accurate forecasts about fish species, their distribution and populations. Such knowledge is essential to the effective management of fish resources so that a harvest of fish may be allowed without damage to the resource. The information is useful in negotiations with other countries with respect to the take of various fish species, since it furnishes accurate data on which to base harvest levels that will not endanger the stock. Scientists point out that some species, such as haddock, might well have disappeared if harvest quotas had not been established through international agreement.

Work with the plankton recorder in tropical and sub-tropical waters may make it possible to determine whether changes will have to be made in the equipment to permit its effective use in the warmer zones. Scientists explain that plankton in these zones usually are more sparse than in the northern latitudes of the Atlantic, and therefore equipment suitable for collection of plankton in these regions may not be ideal for use in the tropics and subtropics. The plankton recorder was first used in the North Sea, and up to this year had not been tested to any extent in the warmer latitudes. One noteworthy difference between tropical and northern waters, it is pointed out, is that while both may have a comparable biomass, the tropics may have many individual species and the northern latitudes only a few.

Aside from aiding in fish stock management, and assisting in sound conservation policies, the information obtained about ocean current systems will help the Navy with its work in submarine logistics and antisubmarine warfare, such as hiding and finding submarines. The passage of sound waves through water is affected by temperature and depth, and accurate water temperature data will add to the Navy's knowledge of the sound

transmission capability of sea water. Thus the Navy is cooperating extensively in this program by participating in training and in the necessary logistic support required to supply the cadets with equipment.

As the midshipmen collect oceanographic information, it will be turned over to the ship radio officer, who will transmit it to the Navy. In this way, data useful to the Navy will become part of its information pool, and through cooperation between the Navy and the interested Commerce agencies they will acquire data valuable to them. While the individual reports made by the midshipmen may not have great value in themselves, they will be highly helpful when fitted into the cumulative knowledge banks.

The scientific work in which the cadets are engaged was the result of an agreement reached last year between the Maritime Administration and the National Oceanic and Atmospheric Administration. The significance of this step, it is explained, is that the midshipmen provide a manpower pool that will permit oceanographic data to be collected on a broader scale at little cost. Heretofore, collection of this information has been very much on a catch-as-catch-can basis. The cadets do routine research that usually would require the use of trained scientists or technicians who may not be available, particularly in the numbers needed. Some mates and engineers on merchant ships have collected a certain amount of information, but as a rule it is out of the question to ask ship crews to do the work.

Employment of the midshipmen in the task, it is pointed out, may make it possible to expand the program in later years, if an expansion plan can be developed and approved. For example, assignment of a greater number of cadets to scientific work could result in the collection of water and plankton samples for a study of pollution from insecticides and pesticides, metals and chemicals and other contaminants.

Moreover, it would also be possible to assign midshipmen to the job of observing and reporting on fish schools and various sea animals such as whales, seals, sea lions, turtles, and aquatic birds in order to enlarge and improve available information about their populations, locations and migratory habits. Scientists emphasize, however, that training would be necessary in order to make sure that reliable reports were submitted, because the cadet observer would have to be certain of what he was seeing and of the information he was turning in. Projects of this nature are being talked about. But so far they are only in the talk stage, and at this time no firm commitments concerning them have been made. —*Maritime Administration*

BOTTOM OF THE FOOD CHAIN—*A Miller high-speed plankton sampler, one of the instruments used to collect plankton, the floating material in the sea which forms the primary food for marine creatures.*

TROLLING FOR FISH FOOD—*A plankton drag-net, used in gathering the primary food of smaller marine creatures, is an important element in oceanography.*

DOMESTIC BUSINESS REPORT

- White House Business Conference plans expand nationwide
- Garden-style apartments lead over high-rise structures
- MESBIC situation 'not bad', but more needs to be done
- Indian economic picture begins to look brighter
- Affluent majority forecast for 2000 A.D.

Countrywide Sessions Will Plan White House Business Conference

Corporate long-range planning executives will be meeting this month with representatives of the Federal government to help plan a White House Conference scheduled for next fall.

These planning sessions will be held in major industrial cities across the Nation. Beginning May 5, meetings have been scheduled for Dallas, Atlanta, Pittsburgh, Chicago, St. Louis, Seattle, San Francisco and Los Angeles. Boston will also be included in the itinerary.

In addition to White House Conference staff, officials from the Commerce Department's Office of Business Services will meet with 15-20 top-level persons in each community.

The Conference with which the meetings are concerned is the White House Conference on the Industrial World Ahead: A Look at Business in 1990, to be held in Washington, D.C., Nov. 8-10.

The executive director of the Conference, Robert W. Miller of the Commerce Department, said that over 1500 key leaders of business, labor, academia and government are being invited to attend. Miller feels the Conference will play an important role in looking at the business situation 20 years from now, and discovering what needs to be done by business and government to fit the changing needs of the Nation.

Conference purpose

"The purpose of the Conference," he said, "is to describe the factors which will shape the U.S. business system in the next two decades, analyze the challenges which these factors represent and recommend methods by which these challenges can be met and overcome."

Jointly sponsored by the Department of Commerce and the Department of Labor, the Conference will cover four subject areas—Business and Society, Technology and Resources, The Human Side of Enterprise, and Structures for Change. Overview papers on each of these categories will be commissioned from future-oriented research organizations to give all

Robert W. Miller

conference members background information.

These overview papers, outlining broad areas of concern for the future, will be mailed to all preregistrants prior to the Conference date, helping to set the tone of the Conference.

Current plans, Miller said, call for developing the daily sessions to incorporate the research papers.

In addition, a chartbook developing basic projections of economic data will be commissioned. In this book will be published a description of future societal trends (including population locations, per capita income and its degree of influence, and population distribution among various age groups), as well as a description of the future industrial composition of the Nation (including major growth industries, emerging/diminishing industries, and industry locations).

Advisory panel

Secretary Maurice H. Stans, who co-chairs the event with Secretary of Labor James D. Hodgson, said that a group of top American leaders are being invited to serve on an Advisory Panel, which will be called upon in the planning and implementation of the sessions. The panel will be made up of ten key people from business, labor and the public.

Conference staff

Working with Miller are White House Staff liaisons, George Crawford, Staff Assistant to the President, and DeVan L. Shumway, Assistant to the Director of Communications for the Executive Branch. One staff member from the Labor Department and two from Commerce are serving as assistant directors for the Conference—Bruce Millen, assistant director for the Department of Labor, William Bolce, assistant director for Programs, and Thomas Macmanus, assistant director for Administration. Program Officer is Sarah Brau.

—Office of the Secretary

BECOMING A FAMILIAR FACE—*More and more apartments of the garden-style, walk-up type are dotting suburban communities, answering a demand of the migrants to these areas, according to the National Association of Home Builders spokesman.*

Apartment Building Shows Increase

A sharp increase in apartment construction, but a much smaller gain in the building of single dwellings, are facts of the last decade.

The 1970 Census of Housing shows that between 1960 and 1970 the number of housing units in buildings of two-or-more units, mainly apartment houses, increased by 5 million in the United States—a jump of 37 percent.

At the same time, one-unit houses, including occupied mobile homes and trailers, increased by 4 million—just under 10 percent.

A spokesman for the National Association of Home Builders explained that probably the main reason for the increase in apartment construction was the exodus of city dwellers to suburbia. He added that this new suburban population created a demand for garden-type walk-up apartments, with more provision for recreation.

In 1970, according to Census Bureau figures, housing units in two-or-more unit structures made up 28 percent of the national housing inventory, contrasted with nearly 24 percent in 1960. The Bureau's surveys of Housing Starts indicated that the growth of multi-unit edifices resulted largely from an increase in the building of apartments of five-or-more units.

The largest gain in the building of apartments showed up in the South. During the ten-year span, 1.5 million units of two-or-more unit structures were added to the housing inventory in the South, an increase of 69 percent. At the end of the decade, however, only 18 percent of all Southern dwellings were apartment buildings, still the smallest for any of the four major regions of the Nation.

One reason cited by the National Association of Home Builders for the big increase in apartment building in the South was the area's small ration of apartments at the beginning of the decade, creating the greater room for expansion. In addition, for Census purposes, Washington, D.C., is included in the Southern count, and the District has experienced a great increase in apartment building in recent years. Moreover, in the South, as in other areas, the newer-type garden-style apartments have been an attraction for lower-income and young persons.

—Census Bureau

Lending To Minority Firms To Build On Early Success

"Not bad so far, but we've got to make things a lot better."

This was the seeming consensus among leaders of the key Federal Government program to promote the growth of minority-owned businesses when they met recently at Rutgers University to assess "The State Of The MESBICs."

"The most important thing to emerge from the conference," according to Derek "Pete" Hansen, director of MESBIC Development for the Commerce Department's Office of Minority Business Enterprise, "was the diversity and creativity that is possible through the basic MESBIC structure. At one end were groups with a strong community development orientation, and at the other were groups who consider themselves venture capitalists in the most direct sense. Some represented old line corporate hierarchies, others represented aggressive communities; some defined their success in terms of profitability, others felt that financial profit was secondary; some wanted to finance larger, manufacturing-type businesses, others were more concerned with street businesses."

Derek "Pete" Hanson

MESBICs are SBA-licensed private investment companies whose sole purpose is to provide business opportunities, long-term financing and management assistance to minority businesses. They are privately funded and operated by companies across the country.

To form a MESBIC, a private investor puts up a minimum of $150,000 in capital, incorporates as an investment company, and obtains a license to operate from the Small Business Administration. The firm is then eligible to borrow $2 from the SBA for each $1 it has in private capital, from a minimum of $300,000 to a maximum of $7.5 million.

These "seed capital" investments take the form of long-term (5-20 years) loans to minority businesses, and/or equity investments. The MESBIC also makes these businesses eligible to borrow up to four times the amount of the loans it authorizes in SBA-guaranteed bank loans.

The MESBIC program is chiefly coordinated by the Commerce Department's Office of Minority Business Enterprise.

MESBIC, it seems, is a game that any number can play. But it's a deadly serious game, involving as it does the long-range health of the nation. And the tools are there—A. H. Singer of the Small Business Administration told the conferees that there is "plenty of ten-year, 6% Government money available for loan to qualifying MESBICs. A MESBIC with $500,000 of private capital could borrow $1 million of Government funds giving it total lendable funds of $1.5 million. So you can see a MESBIC need not be limited to the minimum size—the bigger the better."

As of late April, there were 29 licensed MESBICs in operation, with $5.9 million in private capital supplemented by $1.8 million in funds borrowed from SBA. Twenty-six new license applications are being processed.

What, specifically, are they doing? Let's take one as an example. Rutgers itself sponsored the first university-backed MESBIC last July in partnership with the International Telephone & Telegraph Corp. Graduate School of Business Dean Horace J. De Podwin reports that, in its first six months of operations, the Rutgers MESBIC has:

- Extended $270,000 in loans to 39 minority-owned New Jersey businesses;
- Secured bank participation for an additional $800,000 in loans;
- Joined the country's first loan consortium for MESBICs;
- Applied to the Small Business Administration for $343,000 in debenture capital.

As SBA's Singer summed it up, "The MESBIC Program asks private business to do what it knows best—make investment decisions. We emphasize that MESBIC is not a program of charity, grants, or giveaways, but is a solid, business-like approach to helping solve what is probably our greatest national problem." —*OMBE*

Seminars To Tell Minority Firms How To Sell To U.S.

Minority businessmen from Houston, Texas, to Rochester, N.Y., will get the latest information on federal procurement practices in a series of seminars in May, June and July.

Sponsors of the sessions are the Regional Business Service Centers of General Services Administration, Commerce's Office of Minority Business Enterprise and the Small Business Administration.

Seminars are scheduled for: Houston, 5/25; Corpus Christi, 5/28; Tucson, 6/3; San Diego, 6/7; Fresno, 6/10; San Jose, 6/14; Omaha, 6/18; Des Moines, 6/22; Milwaukee, 6/25; Toledo, 6/29; Rochester, 7/1. —*OMBE*

Indians, Chinese, Getting Boost From Federal Development Funds

American Indians, working to strengthen their position in today's economy, and Chinese immigrants, anxious to break the barriers that keep them economically bound in Chinatown, are getting a lift from the Economic Development Administration.

Introduction of a class for Chinese chefs in San Francisco, construction of a tourist facility by the Seneca Nation in New York and development of a site for a Navajo College in Arizona reflect the versatility of recent EDA efforts throughout the country. Two tribes in Alaska and one in Arizona were assisted in planning for the future and a recent EDA grant will make possible the expansion of the country's largest industrial employer of Indians.

Recipe for jobs

A $58,948 grant to the Immigrants Development Center of San Francisco will help train and place 75 unemployed immigrants as Chinese chefs. Three 16-week courses will be offered in beginning and advanced cooking, and a complex type of pastry baking. The program will help reduce the high unemployment rating among immigrants who possess few skills and face a language barrier making it difficult to find jobs outside Chinatown.

NAVAJO MACHINIST—*Adjusting the computer that operates his drill press is a machinist at the Fairchild plant on the Navajo Reservation, Shiprock, N.M.*

Indian aid

The Seneca Nation will use a $1,500,000 grant from EDA to help build a motel and museum-information center, part of a recreation-tourism complex on the Allegany Reservation in New York. Special training programs will qualify members of the Seneca Nation for management and other professional positions involved in operation of the complex.

The Zuni Reservation in New Mexico will stimulate commercial and community development with a $98,000 grant approved for development of a 10-acre shopping center complex. It is expected to create about 35 job opportunities and provide goods and services not now available on the reservation.

On the Pine Ridge Reservation in South Dakota, the Oglala Sioux Tribe will continue a program of planning for growth with a $38,630 grant to finance administrative costs.

With a $196,000 grant, the Yavapai Indian Reservation in Arizona will pave the way for construction of a new motel facility and expansion of an existing one. The EDA funds will be used for grading and development of a 14 acre site, extension of water and sewer lines from the City of Prescott to the proposed commercial development. Sixty-one new jobs will be created by the project.

On the Navajo Reservation in Arizona the interest is education. A $1,499,880 grant will help develop the site of a community college and town at Tsaile. The money, earmarked for the Navajo Tribal Utility Authority, based at Fort Defiance, will help install water and sewer systems for Tsaile.

HER FUTURE?—*EDA is helping American Indians plan and build a better future.*

Tsaile, on Navajo Route 64 about a half mile north of Tsaile Lake, has been selected as the site for the permanent home of Navajo Community College. Long range plans call for a work force of 380 persons and an enrollment of 1,500 students in four years.

EDA studies released

"A Development Planning Program for the Central Council of the Tlingit and Haida Indians of Alaska," a Federally-financed study recently released by EDA, calls for a $4 million program of economic and social development. Development activities will be initiated with $4 million received in settlement for a land claim in 1968.

The study calls for investment of $1 million in a Minority Enterprise Small Business Investment Co., an allocation of $250,000 to enable local development corporations to participate in the Small Business Administration loan program, and provisions of $250,000 for a Tlingit-Haida credit union.

EDA has $26,720,000 allocated for Indian projects in this fiscal year. —*EDA*

Seven-Fold Rise In Purchasing Power Seen For Affluent Majority

Asserting that "we are heading into a society of an affluent majority," Dr. George Hay Brown, Census Bureau director, told a Federal commission that by the year 2000 about 60 percent of families and unrelated individuals are expected to have incomes of about $15,000 in constant dollars and will account for 85 percent of total income.

Because of the combined impact of both income and population growth, the total amount of purchasing power in constant dollars at this upper income level will be over seven times as great as in 1968, Dr. Brown continued.

About two-thirds of the rise in expenditures for goods and services would take place even if our population stopped growing tomorrow but continued to increase its income and to spend its money in the same old way, according to the Commerce Department official. The increased production resulting from this increased spending will require more raw materials and more pollution abatement activities.

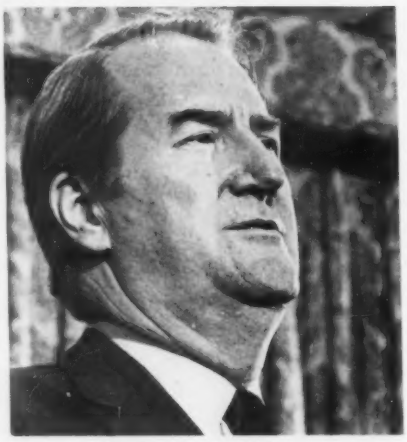
Dr. Brown testified before the Commission on Population Growth and the American Future during public hearings in Washington.

The Census Bureau director was among 20 witnesses who appeared before the commission headed by John D. Rockefeller III. After a number of public hearings throughout the country the panel is expected to recommend a "population policy" for the United States.

Heard all sides

The Rockefeller panel heard testimony from witnesses favoring and opposing zero population growth, discussions of an optimum population for the U.S., population and economic growth and methods of achieving population stability.

"A lower rate of growth is not an automatic solution to the problems which confront us," Dr. Brown stated.



Dr. George Hay Brown

He said economic and social factors are greater threats than population to the quality of American life.

This is not to say that the United States does not have a population problem, the Census Bureau director added, "It does."

"Our problem relates to providing jobs and homes for the growing number of young adults, as well as those members of our society who are unemployed or underemployed and those who are living in housing which does not conform to the generally accepted standards," Dr. Brown continued.

He said that solving the problem means "providing equal opportunity to our citizens. . . . It means providing adequate education not only for the expected increase in number of grade school pupils, but for the growing number who are going to high school and who could benefit from a college education.

"It means creating a climate in which the economy of many of our rural areas can be developed to permit them to compete for people with the metropolitan areas. It means providing necessary services for the growing number of our older citizens."

"Our population problem is one of tackling the agenda for improvement of our total environment," Dr. Brown asserted, "A lowered rate of population growth may facilitate the tackling of these tasks, but it would be only one element in the programs which need to be developed."

Dr. Carl H. Madden, chief economist, U.S. Chamber of Commerce, told the commission that the U.S. population problem is made difficult because population growth is not easy to separate from the per capita growth in consumption of resources and the proliferation of "gross national by-products" of pollution.

Dr. Madden, in his testimony, chided those who would advocate both zero population and zero economic growth. He asserted that reducing economic growth is no guarantee of reducing pollution, while slowing growth reduces also the capacity to produce pollution abatement equipment, and jeopardizes efforts to broaden working opportunities for underemployed groups.

He said perhaps the greatest contribution of the debate about zero population and economic growth is to awaken thought about the implications of present conventional ways of looking at production, consumption, population, income and wealth. Dr. Madden added that the economic implication is to perceive that "the essential indicator of success is not production and consumption, but the nature, extent, quality and complexity of the total capital stock, including the state of human bodies and individuals in the system."

Another witness, Stewart Udall, former Secretary of the Interior and now an environmental consultant, urged the commission to call for a stationary population size in this country as soon as it can be achieved within the context of democratic traditions.

—Commission on Population Growth and the American Future

Joint Group Reviews U.S. Maritime Needs

A Joint Maritime Administration-Navy planning group will conduct a continuing review of future ocean shipping requirements and availability to meet military and civilian needs in time of emergency.

Re-establishment of the planning group, first formed in 1952, was announced recently by Vice Admiral Arthur R. Gralla, Commander of the Military Sealift Command, and A. E. Gibson, Assistant Secretary of Commerce for Maritime Affairs.

Since the original planning group was formed, the inventory of vessels in the privately-owned merchant fleet and the Navy's Military Sealift Command fleet has undergone substantial contraction and many vessels are obsolete. In addition, the National Defense Reserve Fleet, a primary source of additional emergency sealift, is being depleted by the scrapping of overaged ships.

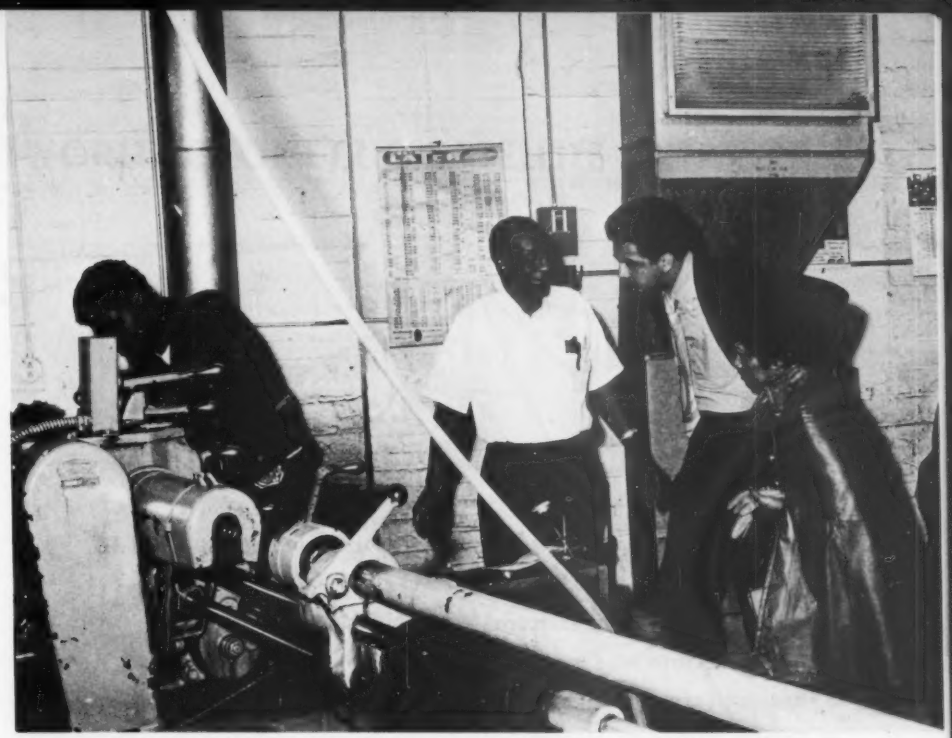
While President Nixon's new maritime program will greatly improve the nation's sealift capabilities in the next ten years, the numerical and qualitative decline of the U.S. flag fleet will become acute in the immediate future.

—Maritime Administration

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints—the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary. U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.



CLEVELAND MINORITIES SCORE—*Hough Manufacturing Corporation was among minority enterprises in Cleveland, Ohio, toured recently by representatives of Federal agencies. From the left are James Nelson, operating a No. 2 Warner and Swasey turret lathe; Robert Cole, Hough president; W. Ronald Evans, business and industry specialist, Small Business Administration, Washington, D.C.; and Mrs. Carolyn B. Cox, Urban League of Cleveland. The visitors also participated in the opening of the Greater Cleveland Growth Corporation, an affiliate office of the Department of Commerce Office of Minority Business Enterprise.*

Calendar For Businessmen

May 7—Milledgeville, Ga.—Business Development Conference at the Georgia College. For information contact Department of Commerce Field Office in Atlanta.

May 12—New York City—Input-Output Symposium at 9:15 a.m. at the New York Hilton Hotel. The all day conference, "New Information Systems For Business Problem Solving," is sponsored by the New York Business Service Office, New York Chapter of American Statistical Association, and The Institute for Interindustry Data Inc., 1270 Avenue of the Americas. For information contact George H. Blackett. Phone 212-265-2666.

May 19 — Oakland, Calif. — Asst. Secretary of Commerce for Economic Development, Robert A. Podesta, will take part in formal dedication ceremonies for the Seventh Street Marine Terminal port facilities. Contact Ben E. Nutter, Port of Oakland Office of Economic Development. Phone: 415-444-3188.

May 21—San Juan, Puerto Rico—Census User Conference. For information contact George Delgado, Department of Commerce Field Office in San Juan.

May 27—Washington, D.C.—Census User Conference. For information contact Stuart Bloch, Census Data Corp., 1710 N. Street, NW, Washington, D.C., 20036. Phone 202-628-2601.

June 8 — Chicago — Camping Congress, Pick-Congress Hotel, by the Family Camping Fed. Deputy Asst. Secretary of Commerce James Hamilton III will discuss camping by foreign visitors in the United States. Contact Donald J. Ryan, P.O. Box 1138, Billings, Montana, 59103.

June 17—Atlanta—Domestic Business Seminar at Commerce Field Office, 75 Forsyth St., NW.

SCIENCE & TECHNOLOGY REPORT

- **Precise earth measuring program data to be computed by 1972**
- **Wisconsin lab to test chemical used to kill Great Lakes' lamprey**
- **Solid waste recycling concerns BIR congress meeting in June**
- **Annapolis firm wins ocean sensor bid**
- **Research group will help shift technology to developing nations**
- **Patents of special interest**

Precise Earth Measuring Program Data To Be Computed By 1972

By June 30, 1972, final computations will be completed of data amassed during a four-year international program involving 32 nations and three federal agencies to determine the size and shape of the earth.

In announcing the end of what has been the most accurate measurement ever made of this planet, Commerce's National Oceanic and Atmospheric Administration reported that processing of the data involves the measurement of millions of stellar and satellite photographic images.

Solution of complex programs of simultaneous equations involving several thousands of mathematical unknowns will be accomplished on large computers at NOAA's computer center at Suitland, Maryland, in the environs of Washington.

The program was carried out, in cooperation with foreign nations, by three federal agencies—the National Aeronautics and Space Administration and the Departments of Defense and Commerce.

17 camera systems

Involved was the use of as many as 17 camera systems and teams employing satellite triangulation. Under this program, simultaneous photographs were made at night by two or more teams, spaced approximately 2,500 miles apart, of the sun-illuminated PAGEOS satellite in a near polar, circular orbit approximately 2,500 miles above the earth. Sixteen of the camera systems were identical. The 17th was the same camera, with a compatible timing and synchronization system.

In addition to determining the size and shape of the earth with a preciseness never before achieved, the program will result, once the data are analyzed, in the establishment of a worldwide geodetic network which will tie together most of the world's major datums. A datum is a mathematical base which enables surveyors to define precise horizontal and vertical positions on earth. Thus, for the first time, the earth's continents and most of the major islands will be joined to a common datum to which their datums can be adjusted.

The data amassed by the satellite triangulation teams, together with measured distances, will pro-

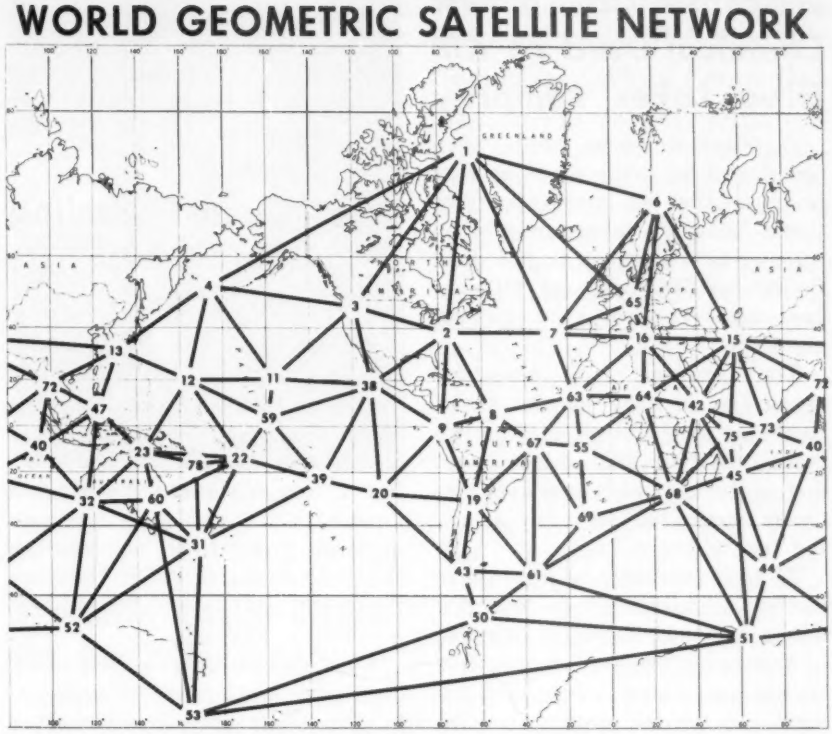
vide a more accurate knowledge of earth parameters for the solution of modern geodetic problems and for meeting the requirements of modern astronomy and space research. They will enable more accurate determinations to be made of satellite orbits, which will provide data ideally suited for analyzing gravimetric and related geophysical parameters. These parameters in turn are necessary prerequisites for determining the center of the mass and the overall gravitational field of the earth.

Network of triangles

In observing the satellite PAGEOS, a network of spatial mathematical triangles connecting continents and intervening islands was formed. In addition, sides of four of these triangles, namely transcontinental distances, were precisely measured on each of four continents—Europe, Australia, Africa, and North America. These precise measurements were done with the cooperation of Australia, Austria, Camaroon, Chad, Denmark, Italy, Mali, Norway, Niger, Nigeria, Senegal, Sudan, Sweden, Upper Volta, and West Germany.

The worldwide program was carried out largely by the U.S., which furnished as many as 15 of the 17 camera teams. West Germany supplied two teams and the United Kingdom one team that operated worldwide, while Australia furnished two teams and South Africa one team which operated in their countries.

NASA provided overall management responsibility for the program which began in 1966 with the launch of the balloon satellite PAGEOS as an integral part of the National Geodetic Satellite Program. This network will serve as the primary geometric framework for other phases of the program. The space agency designed and launched the PAGEOS satellite and furnished orbital elements for computation of observation predictions.



MAPPING THE EARTH PRECISELY—*Depicted are 45 sites in 24 countries and territories where U.S., United Kingdom, West German, Australian, and South African satellite triangulation teams photographed the PAGEOS satellite and the stars in a four-year program to establish a world geometric satellite network. It will provide the most accurate measurement ever made for determining the earth's size and shape.*

The Topographic Command of the Army Corps of Engineers had the primary responsibility for logistics. It furnished four field observation teams.

Planning began in 1950s

The National Ocean Survey, formerly the U.S. Coast and Geodetic Survey, an agency of NOAA, exercised the technical responsibility for data acquisition, reduction and analysis of results. The agency also provided training for all personnel and prepared operational manuals. It also supplied up to 12 observational teams. Planning and development of the program was begun by the Coast and Geodetic Survey in the late 1950s.

Observations were made at 45 locations on every continent, on uninhabited and sparsely-populated islands, in the desert, in the tropics and in the frigid wastes of the Arctic and Antarctic.

Twenty-four nations cooperated in the field observations by authorizing the camera teams to operate within their borders and territories.

Capt. Lawrence W. Swanson, the program's manager within NOAA, said the collection of data from all continents and most major islands, from which a unified datum for the earth will be determined, constituted "the first and only program in five thousand years of surveying to accomplish this." The NOAA official said the work can affect the geodetic systems of all nations when a unified world coordinate system is developed.

Present plans are to publish the final results when they are completed and analyzed. During the next two years, NASA will be furnished the data as completed for storage and dissemination at its Geodetic Satellites Data Service.

—*NOAA*

Wisconsin Lab To Test Chemical Used To Kill Great Lakes' Lamprey

A pharmacological study of a chemical used with great success in controlling sea lampreys in the Great Lakes is being undertaken for the first time at the Medical College of Wisconsin at Milwaukee. The chemical is commonly known as TFM.

The lampreys have been for years the scourge of the Great Lakes as they kill off marine life including the valuable lake trout and white fish which have been virtually eliminated, seriously affecting the fishing industry.

TFM is currently being used in Lakes Michigan and Superior where it has been shown effective in destroying the sea lamprey during an early stage of its development. In treated waters, concentrations of TFM are lethal to sea lamprey larvae, while most other fish and other aquatic species are unaffected.

However, TFM is a toxic agent that has been introduced into the lakes with very little known of how it works and what happens to it after it has served its purpose. There have been no definitive studies of the pharmacology of TFM, its metabolic fate in fish and mammals, and its possible effects on the environment.

A $26,500 Sea Grant recently awarded by Commerce's National Oceanic and Atmospheric Administration will finance studies by Dr. John H. Lech of Wisconsin's Medical College concerning the metabolism and pharmacology of TFM (3-trifluoromethyl-4-nitrophenol).

Using standard laboratory techniques, pharmacologists will investigate TFM in mammals, fish, and the sea lamprey. In particular, they are interested in finding out the actual mechanism by which TFM works on lampreys, and what happens to it afterwards. They will study TFM metabolism, its biochemical effects, and pharmacological activity both in the cardiovascular system and in the brain and nerve systems. *—NOAA*

Solid Waste Recycling To Be Studied At June 11-17 Meeting

Reclamation of solid wastes through effective recycling will be the concern of the annual congress of the Bureau International de la Recuperation (BIR) which is meeting in New York and Washington June 11-17. The BIR is an international federation representing the solid waste recycling industry throughout the world with headquarters in Brussels.

Top ranking representatives of companies in the field of reclamation from many nations including Great Britain, France, Germany, Italy, Yugoslavia, and Czechoslovakia are expected to attend.

Robert McLellan, Assistant Secretary of Domestic and International Business at Commerce, will be the congress' keynote speaker at the Waldorf-Astoria Hotel in New York June 15. Dr. Harold C. Passer, Assistant Secretary for Economic Affairs at Commerce, will address the congress in the Commerce Department Auditorium June 16.

The Institute of Scrap Iron & Steel and the National Association of Secondary Material Industries, whose member companies handle virtually all of the metallic and non-metallic solid wastes now being recycled in this country, are coordinating the congress with the assistance of the Metals and Minerals Division of the Bureau of Domestic Commerce.

The congress is expected to cover the entire range of recycled products: iron and steel scrap, nonferrous metal scrap, paper, textiles, rubber, and plastics.

—Bureau of Domestic Commerce

Annapolis Firm Wins Ocean Sensor Bid

Westinghouse Electric Corporation's Ocean Research and Engineering Center, at Annapolis, Md., will develop and test meteorological and oceanographic sensors for ocean platforms to be deployed in the Gulf of Mexico under a $3 million contract awarded by Commerce's National Oceanic and Atmospheric Administration last week.

Westinghouse will work in conjunction with the Electro-Dynamic Division of General Dynamics which was recently selected to act as the system integration contractor as well as to build the test platforms.

The sensors to be tested will measure ocean and atmospheric data, including wind speed and direction, rainfall, air temperature and pressure, dew point, water temperature, current speed and direction, conductivity, and sound speed. The ability to gather such information from unmanned ocean platforms will aid in filling the long-recognized data gap in maritime areas of the world.

The National Data Buoy Project Office, recently transferred from the Coast Guard to NOAA, is to develop the capability for deploying an operational network of automatic marine data collection platforms. The new sensors are part of the Project's Engineering Experimental Phase to evaluate buoy systems and improved oceanographic and meteorological sensors, as well as to gain experience in operating a data buoy system and in handling the data from it.

Testing and evaluation of the sensors in the Gulf of Mexico will be coordinated by the Project's staff at the Mississippi Test Facility near Bay St. Louis, Miss. Support will be provided by the U.S. Coast Guard, which recently announced the shifting of a vessel from the west coast to Gulfport, Miss., for this purpose. *—NOAA*

Research Group Will Help Shift Technology To Developing Lands

To assist in accelerating industrial development in the developing nations of the world by means of technology transfer from the more advanced nations is the purpose of a new international organization, the World Association of Industrial and Technological Research Organizations (WAITRO).

Formed in Vienna last October under the sponsorship of the United Nations Industrial Development Organization, WAITRO aims to provide information and assistance to improve existing or to establish new industrial and technological research institutes. This new non-governmental organization will serve as an information clearing house, assist in locating financing for improvement of research facilities, and promote exchange programs.

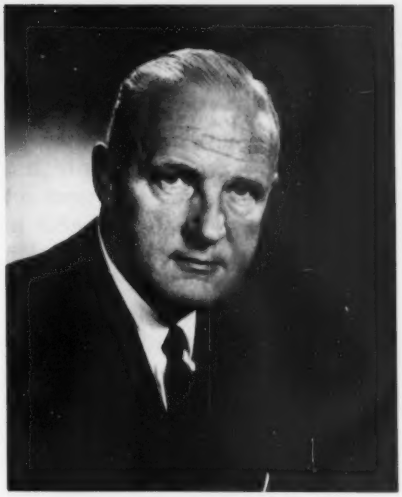
Representatives of more than 100 research institutions from 12 developed and 42 developing countries attended the founding meeting along with representatives from nearly a score of international organizations. George C. Nichols, of Commerce's National Bureau of Standards, and senior officials of Batelle Memorial Institute and Stanford Research Institute represented the U.S.

Membership is limited to nonprofit organizations actively engaged in industrial and technical research or promoting research.

During its first year of operation, WAITRO is assembling a register of members, circulating a questionnaire to determine interest, needs, and desires of members, preparing projects to promote the aims of the organization, and seeking financial support.

Institutions interested in obtaining more information or applying for membership should write to:

WAITRO, c/o P. C. Trussell, British Columbia Research Council, Vancouver, B.C., Canada.



James H. Wakelin, Jr.
Assistant Secretary for Science and Technology

Wakelin Takes Oath As Ass't Secretary

James H. Wakelin, Jr., was sworn in recently by Secretary Stans as Commerce's Assistant Secretary for Science and Technology.

In this post, he serves as chief adviser for science and technology to the Secretary and has department-wide responsibility for environmental affairs. He is also responsible for the National Bureau of Standards, the Patent Office, the Office of Telecommunications, the National Technical Information Service, and serves as chairman of the Commerce Technical Advisory Board.

No newcomer to government, Mr. Wakelin served the Eisenhower administration as Assistant Secretary of the Navy (Research and Development) from 1959 to 1964. Following the 1968 election President-elect Nixon named him chairman of the President's Task Force on Oceanography.

On assuming his present post, Wakelin relinquished various corporate positions. Since 1964 he had been a consultant and member of the advisory board of Teledyne Ryan Aeronautical Co., San Diego, Calif.

Industry Must Lead Way In Reducing Noise Pollution, Commerce Official Points Out

Industry is not the "prime culprit" in the matter of noise pollution, but the public expects it "to lead the way to correction because most controllable noise originates with manufactured products," James T. Lynn, Commerce's Under Secretary, told a recent meeting of the Acoustical Society of America in Washington.

"Mandatory noise standards will be increasingly with us," he said. "It is clearly in industry's self-interest to start now to reduce unnecessary noise wherever possible."

Industry has the technical capability to cut down noise—in the products it makes for home, industry, and the community as well as noise in the workplace and the environment—and should move now toward reducing unnecessary sound wherever possible, said Lynn.

"Fortunately, industry has a heritage of voluntary standard making," he added, "a system which works for the consumer as well as the producer. The National Bureau of Standards has long been a partner with industry in helping develop such standards."

With more than 40 years' experience in noise control, Lynn pointed out, the Bureau, along with the newer National Industrial Pollution Control Council and other parts of the Commerce Department, stand ready to assist industry in meeting the noise challenge.

He spoke in introducing an audiovisual presentation prepared by the Bureau of Standards which features examples of indoor and outdoor noise problems in industry, the community and the home. The Bureau's noise activities include methods of measuring human response to the loudness and other characteristics of noise; acoustical measurements and instruments; how sound is generated; and problems of noise in buildings.

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Invalid lifting device. A lifting device for invalids with a pair of interconnected invalid supporting frames. Each of the frames have a horizontal section adapted to support the arms and shoulders of an invalid. Patent No. 3,568,226 issued to James E. Mater, 9621 Belinder Road, Leawood, Kan., 66206, Leon L. Parker, Kansas City, and Paul D. Gernhardt, Overland Park, Kan.

Slide fastener. A slide fastener operating mechanism adapted for door or wall mounting which is secured to an endless cord that is suspended and running between spaced, resiliently-supported end pulleys. Patent No. 3,568,901 issued to Lewis F. McNitt, 23219 Lake Road, Bay Village, Ohio.

Replica wooden beams. Molded plastic replica wooden beams and panels comprised of a foamed urethane, stained to resemble wood. Patent No. 3,561,181 issued to Stephen H. Basset, New York, N.Y., and assigned to Paeco, Inc., of New Jersey.

Cardiac implant. A cardiac implant for use in supplying arterial blood to portions of the myocardium of a patient. The implant is made of silicone-impregnated woven Dacron, pre-clotted in the patient's own blood, and consists of a main portion or tube which separates into a number of branch portions. Each of the branch portions is provided with a number of perforations. The main tube is grafted to the aorta, and the branches are inserted in the myocardium of the patient. Patent No. 3,570,013 issued to Louis J. Blumen, 8 Carleton Drive, Pittsburgh, Pa.

Simulated driving apparatus. An apparatus for producing upon a screen an illusion of a panoramic roadway and simulated vehicle image under the control of an operator. The images are created by a light source projected through a number of rotating transparent discs, with the images movable in response to the speed and direction of rotation of the discs as well as the movement of the light source. All of the movements are under the control of the operator thus testing and training the operator's coordination and reflex actions. Patent No. 3,568,332 issued to Jerry C. Koci, Barrington, Ill., and Albert L. Schlapa, Fort Atkinson, Wis., and assigned to Chicago Dynamic Industries Inc., Chicago, Ill.

Resilient bumper strip. A protective, decorative, and resilient buffer accessory molding for motor vehicles. Patent No. 3,572,798 issued to Alex Kunevicius, Independence, Ohio, and assigned to Custom Trim Products, Inc., Cleveland, Ohio.

Weight reduction calculator. A weight reduction calculator which correlates the age, weight, height, and physical activity by means of appropriate scales on axially-aligned, rotatably-mounted discs to indicate food allowance in calories. Using the food allowance data, the number of days a person should be on a diet are calculated. Patent No. 3,572,585 issued to Richard Paul Weaver, Portage, Mich., and assigned to The Upjohn Company, Kalamazoo, Mich.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,800 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Science Calendar

May 10-14 — Gaithersburg, Md. — National Bureau of Standards conference on: Flow—Its Measurement and Control in Science and Industry. Cosponsors: American Institute of Physics, American Society of Mechanical Engineers, ISA.

May 24-26 — Gaithersburg, Md. — National Bureau of Standards. Fourth Joint Meeting of Operations Researchers. Cosponsors: College on Logistics of the Institute for Management Sciences; Mathematical Society of America, American Society for Cybernetics, American Society for Public Administration, Association for Computing Machinery, and the Operations Research Society.

June 11-17—New York and Washington—Annual congress of the Bureau International de la Recuperation. Sponsored by Institute of Scrap Iron & Steel and the National Association of Secondary Material Industries, assisted by Metals and Minerals Division, Bureau of Domestic Commerce. Waldorf-Astoria Hotel and Commerce Department auditorium.

June 16-18 — Gaithersburg, Md. — National Bureau of Standards, Summer Symposium in Analytical Chemistry. Cosponsor: American Chemical Society.

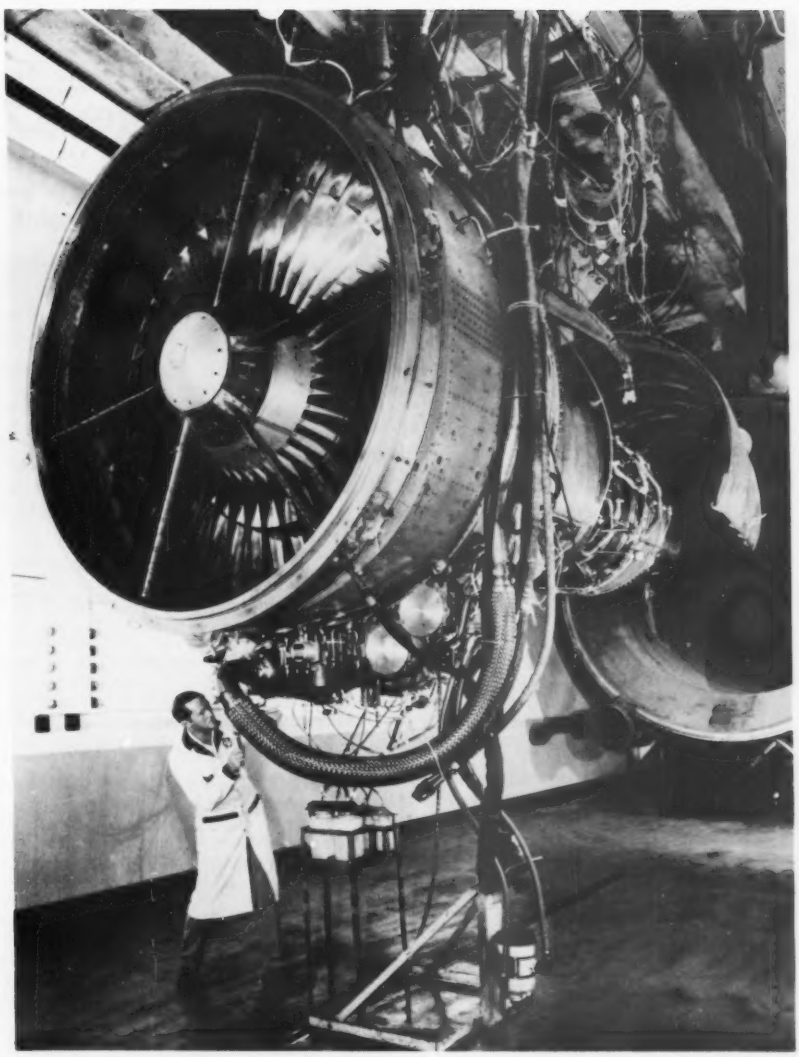
June 21-24, 1971—Washington, D.C. —Fifth Symposium on Temperature, Its Measurement and Control in Science and Industry, Sheraton Park Hotel. Sponsors: American Institute of Physics, the Instrument Society of America, and the National Bureau of Standards.

May 3, 1971

International Commerce

- Food machinery firms assess East Europe markets
- Legislative, official actions on trade
- India putting top priority on economic growth
- Israel's economy booming despite strains
- Overseas trade promotions schedule

Latest In U.S. Technology Heading For Paris Air Show



Newsmemo

Industrial viewpoints from America and Japan about patents, know-how and licensing will be shared this week in Washington. Representatives of 200 member companies of the Pacific Industrial Property Assn. are convening May 4-6 with Government officials, industrial patent lawyers, and R & D specialists to study the "state of the art" in the intellectual property protection field, and ways to keep technical innovations flowing across the Pacific in an orderly manner.

Maine Research Corp. of Lisbon, Me., has entered the computer circuit market in Italy with a newly-appointed agent. It happened between-regular-shows at the Milan US Trade Center this spring. The Italian candidate sent invitations to 350 leading computer engineers, and agreed to accept the agency only if a presentation by Maine Research president Dimitry Grabbe to the engineers proved promising. A two-hour lecture and demonstration by Grabbe got a sales response that may reach seven figures.

An experienced Australian marketing company has told the Sydney U.S. Trade Center that it is on the right track in its sales promotion efforts (which began less than a year ago). Edwards Dunlop & Co., Ltd., one of the three largest distributors of graphics arts equipment in Australia, sent along this comment to the Center director: "The exacting organization of the Graphic Arts Trade Exhibition carried out by you and your staff assured a complete coverage of the graphic arts field, which in turn was rewarded in full by the number of people in attendance, all of whom were in some way associated with our industry."

A trend indicator in the annual report of the American Chamber of Commerce in the Netherlands: In 1961, when the AmCham was founded, 35 per cent of voting members were Americans, 65 per cent Dutch. Though the ratio of American to Dutch firms in the membership has remained constant, the number of Americans among voting members has now dropped to 25 per cent. This would confirm that an increasing number of top management positions are now being filled by Dutch nationals, since voting members who represent companies are usually managing directors.

Pollution and what to do about it, as seen through American eyes, is a subject being presented to European engineering-industrial audiences prior to a Commerce-led exhibition of purification equipment. "Show and Tell," a 45-minute audio-visual presentation prepared by the American Iron & Steel Institute, will have seven exposures in France, West Germany and the Netherlands before arriving at the U.S. exhibition at PROAQUA PROVITA in Basel, Switzerland, June 8-12.

International Trade Winds

STARCH—National Starch and Chemical Corp., New York, has formed a joint venture with Oji Cornstarch Co. of Japan for the manufacture and sale of modified starch products in Japan. In this agreement, National's first in the Far East, the U.S. firm will provide assistance in producing and marketing specialty products, including plant design, training, and research and development. Oji will provide raw starch.

SYNTHETICS — Chemtex Fibers, Inc., New York, has designed a polyester plant for Indian Organic Chemicals Co. Ltd., of Bombay. The capacity of the new plant, located in Madras, is about 20 tons per day of polyester polymer and staple. Chemtex is building most of the machinery and equipment for the new facilities, which is a $13 million investment. Chemtex, through its subsidiary Chemtex Engineering of India, Ltd., is also working on three other Indian projects.

MARINE EQUIPMENT — Kiekhaefer Mercury Division of Brunswick Corp., Fond du Lac, Wis., plans to construct a manufacturing facility in Belgium to produce some models in their line of outboard engines. The new plant will be operated by Mercury Outboards Europe, S.A., a wholly-owned Brunswick subsidiary; operations are slated to start later this year. Representing an $8 million investment, the factory is located at Petit-Rechain near Verviers. Brunswick also plans to purchase about six acres on the Meuse River.

PAPER—Clupak, Inc., New York, has signed a licensing agreement with Oy W. Rosenlew A.B. of Pori, Finland, for the manufacture in Scandinavia of Clupak's extensible paper. Rosenlew is the fourth Finnish paper company licensed to produce the special paper which will be used mainly for multiwalled sack paper and packaging converting grades.

SHIPPING—Associated Container Transportation (U.S.A.), New York, will join with Overseas Containers Ltd. and The Australian National Line to operate a five-ship fleet of 25,000-ton, 22½ knot cellular containerships. To be known as PACE Line, for Pacific America Container Express, the new vessels will gradually replace a larger fleet of conventional cargoliners now serving U.S., Canadian, Australian and New Zealand ports.

Mission To Eastern Europe, Yugoslavia Sees Sales Gain

Sixteen agency agreements under negotiation, development of 101 "live" business opportunities, sales in the next 12 months projected at more than $3 million, and return visits soon by six of the eight firms comprising the recent U.S. Food Processing and Packaging Equipment Trade Mission have been reported by the group—just back from Yugoslavia, Romania, and Czechoslovakia.

"We went to survey a new market—primarily seeking information—and found ourselves with more requests for specific price quotations than we could handle on the spot," one of the members reported.

The specialized trade mission, organized by the Department of Commerce, from March 21 through April 3 visited Belgrade, Zagreb, Bucharest, and Prague.

New laws help

Of the 16 agency agreements under negotiation, most of them are in Yugoslavia; but several mission firms also are interested in on-the-spot representation in Romania and Czechoslovakia, both of which recently have enacted laws to facilitate agency relationships between their nationals and foreign companies.

Negotiations were opened with Yugoslav and Czech manufacturing enterprises by mission members interested in licensing their technology and know-how. These contacts, described as "excellent prospects," will be actively pursued in the months ahead.

"All three countries are giving high priority to upgrading the quality and efficiency of their food and beverage processing and packaging—both for export to Western markets and for domestic consumption," said Mission Director James W. Goodsell of the Commerce Department's Trade Missions Division. "American machinery and technology in these fields are recognized as the best in the world."

The extent of the welcome received—both official and unofficial—impressed the mission members. They met with managers of trading and producing enterprises, and had official sponsorship and cooperation from Yugoslavia's Federal and Regional Economic Chambers and the National Chambers of Commerce in Romania and Czechoslovakia.

Serious problems of price competition, terms of payment and availability of hard currency did arise during mission members' discussions with prospective customers. "But obviously they were not insuperable, or the mission would not be projecting 12-month sales of more than $3 million," Goodsell reported.

The mission's success, despite these obstacles, was attributed by the director to three factors: the recognized superiority of U.S. equipment; a flexible approach by mission members, and the tendency in all three countries to look upon such purchases as capital investments which will earn hard currency through increased ex-

Paris Air Show Nears Opening; 184 Firms In New U.S. Pavilion

In Paris, workmen are putting the last touches on a newly constructed U.S. Pavilion. In 16 nations, intensive marketing programs are heading down the home stretch. And in the U.S., officials of 184 companies are finalizing details concerning their displays. These activities are all preambles to the 29th International Aerospace Show in Paris.

From May 26-June 7, the U.S. and 13 other nations will operate national pavilions at the Paris Air Show. Companies from more than 50 nations will mount displays in exhibition halls, chalets and on the apron at the Le Bourget Airport at Paris. The Commerce Department's Bureau of International Commerce will operate the U.S. Pavilion.

On the flightline, American-made aircraft, and planes from 11 other nations, will be open for inspection. Current plans call for the four largest U.S. planes to be on view: McDonnell Douglas DC-10, Lockheed's L-1011 and C-5A, and Boeing's 747.

The crew of the Apollo 14 will be attending the Paris event. Alan B. Shephard, Jr., Stuart A. Roosa, and Edgar D. Mitchell may visit the U.S.S.R Pavilion with the Soviet Cosmonauts, and then guide the Soviet spacemen through the U.S. show.

Also on view will be jet engines such as the CF6-50 A pictured on page 33. This General Electric engine is reportedly the most powerful airplane turbofan engine in production today and it has been selected to power the DC-10 Series 30 tri-jets and the Airbus Industrie A300B twin-jet.

Cooperating with the Commerce Department in the U.S.-display at the Paris show are the National Aeronautics and Space Administration, Federal Aviation Administration, Departments of Defense, Labor and Transportation, the Smithsonian Institution, and U.S. Travel Service.

BUSINESS INTERVIEWS *in Belgrade were held in Federal Economic Chamber offices. From left: a factory manager; mission member Thomas L. Brejcha; director James W. Goodsell; interpreter; Miomir Jurevic, U.S. Embassy staff; prospective customer. In Prague (picture at right), V. Ben Martin, European representative for Anchor Hocking, peers into vat, as group tours chocolate plant. Others, from left: factory manager; members Jack D. Voss, Goodsell, W. W. Moyden, Joseph Shuster.*

ports of foods and beverages to the West.

In addition to problems of price and payment, mission members encountered concern over availability of service and parts, and over interchangeability of equipment built to the English and metric systems. Companies with European offices or manufacturing subsidiaries reported more success than those that had none.

Strongest competitor

West Germany is the strongest and most aggressive competitor to the United States in these markets, the mission reported, closely followed by East Germany, Italy, and the United Kingdom. Japanese manufacturers and trading companies are increasingly active in their sales efforts in Yugoslavia and throughout the Soviet bloc.

"The meat industry appears particularly ready to accept new machinery," commented Joseph Shuster of ICORE Industries, Sunnyvale, Calif., considering the three countries visited. He added:

"Financing must be considered as a prime selling tool. It seems possible to sell some of the first units in a country on conventional U.S. payment terms; but for long-range business, credit over extended periods as well as barter will be requested."

Gene W. Hinds of Hinds International Sales Co. Portland, Ore., observed that "food producers and processors in each country repeatedly emphasized their interest in obtaining the best equipment and technology in the world to permit their participation in the lucrative Western market, as well as to up-grade their own consumer markets."

Export aspirations of the host countries was emphasized also by Donald J. Mitchell of Callahan Ams Machine Co. Proctor, Vt.: "Some of the equipment in these countries is fairly modern, but it does not come up to the speeds we are capable of offering. Their meat and food processing industry is slated for a major expansion and modernization in order to export their food and beverages to the United States and elsewhere in the world."

W. W. Moyden of Fleetwood Systems, Inc., Countryside, Ill., assessed the competitive situation as follows:

"East and West German companies, Italian, and others have successfully sold in these markets for years. However, we are confident that American quality and salesmanship will win an appreciable share of the market in the coming years."

A definite need for modern packaging methods and machinery was observed in all three host countries by Jacques J. Homeyer of the Woodman Co., Decatur, Ga., who saw "the lack of hard currency" as the most serious obstacle to increased sales.

Strong competition from West Germany was noted by Thomas L. Brejcha of the Ladish Co., Tri-Clover Division, Chicago, who won a standing ovation at a meeting in Prague by making his speech in Czech. "Many enterprises have shown interest in our products," he reported, "and time will tell whether these contacts will be fruitful."

Wallace M. Derry of the George J. Meyer Manufacturing Division of A-T-O Inc., Oak Brook, Ill., and Jack D. Voss of the Anchor Hocking Corp., Lancaster, Ohio, stressed the advantage of a trade mission in helping its members accomplish so much in such a short time.

Mainland China's Foreign Trading Corporations' Roles Are Summarized

Mainland China's foreign trade corporations, by name, address, and principal exports and imports, or services, are presented below. The list, believed to be current and complete, is adapted from the Feb. 13 issue of *Foreign Trade*, published by Canada's Department of Industry, Trade, and Commerce, Ottawa, and a recent supplement to the *Sino-British Trade Review*, published by the Sino-British Trade Council, London.

For a review of free-world trade with Mainland China during the 60s, see pages 4-9 of this issue of *Commerce Today*.

China National Chemicals Import and Export Corp., Erh Li Kou, Hsi Chiao, Peking. Cable: SINOCHEM PEKING. Rubber, rubber tires and other rubber products, petroleum and petroleumn products, chemical fertilizers, insecticides fungicides, pharmaceuticals, medical apparatus, chemical raw materials, dyestuffs, and pigments.

China National Native Produce and Animal By-Products Import and Export Corp., 82 Tung An Men Street, Peking. Cable: CHINATUHSU PEKING. Tea, coffee, cocoa, tobacco, bast fiber, rosin, feedingstuffs, timber, forest products, spices, essential oils, patent medicines and medicinal herbs, as well as other native produce, bristles, horse tails, feathers, down, feathers for decorative use, rabbit hair, wool, cashmere, camel hair, casings, hides, leathers, fur mattress, fur products, carpets, down products, living animals.

China National Light Industrial Products Import and Export Corp., 82 Tung An Men Street, Peking. Cable: INDUSTRY PEKING. Paper, general merchandise, stationery, musical instruments, sporting goods, toys, building materials and electrical appliances, fish nets, net yarns, leather shoes, leather products, pottery and porcelain, human hair, pearls, precious stones and jewellery, ivory and jade carvings, lacquer ware, plaited articles, furniture, artistic handicrafts and other handicrafts for daily use.

China National Textiles Import and Export Corp., 82 Tung An Men Street, Peking. Cable: CHINATEX PEKING. Cotton, cotton yarns, raw silk, steam filature, wool tops, rayon fibers, synthetic and man-made fibers, cotton piecegoods, woolen piecegoods, linen, garments and wearing apparel, knitted goods, cotton and woolen manufactured goods, readymade silk articles, drawn works.

China National Cereals, Oils and Foodstuffs Import and Export Corp., 82 Tung An Men Street, Peking. Cable: CEROILFOOD PEKING. Cereals, edible vegetable and animal oils and fats, vegetable and animal oils and fats for industrial use, oil seeds, seeds, oil cakes, feedingstuffs, salt, edible livestock and poultry, meat and meat products, eggs and egg products, fresh fruits and fruit products, aquatic and marine products, canned goods of various kinds, sugar and sweets, wines, liquors, spirits of various kinds, dairy products, vegetables and condiments, bean flour noodles, grain products, canned goods, nuts and dried vegetables.

China National Machinery Import and Export Corp., Erh Li Kou, Hsi Chiao, Peking. Cable: MACHIMPEX PEKING. Machine tools, presses, hammers, shears, forging machines, diesel engines, gasoline engines, steam turbines, boilers, mining machinery, metallurgical machinery, compressors and pumps, hoists, winches and cranes, transport machinery (motor vehicles) and parts thereof, vessels, etc., agricultural machinery and implements, printing machines, knitting machines, building machinery, machinery for other light industries, ball and roller bearings, tungsten carbide, electric machinery and equipment, telecommunication equipment, electric and electronic measuring instruments, scientific instruments, complete industrial plants, technical knowhow.

China National Metals and Minerals Import and Export Corp., Erh Li Kou, Hsi Chiao, Peking. Cable: MINMETALS PEKING. Steel plates, sheets and pipes, steel sections, steel tubes, special steel, railway materials, metallic products, pig iron, ferro-alloys, nonferrous metals, precious rare metals, ferrous mineral ores, non-ferrous mineral ores, non-metallic minerals and products thereof, coal, cement, hardware.

Sinofracht Chartering and Shipbroking Corp., Erh Li Kou, Hsi Chiao, Peking. Chartering of vessels and booking of shipping space required for Chinese import and export cargoes. Also, similar business on behalf of principals located abroad. Canvassing cargoes for ship owners.

Complete Plant Export Corp., Fu-Wai St., Peking. Exporters only: of complete factories, works and production units, usually, but not exclusively, as part of an economic-aid agreement.

Publications Centre Guozi Shudian, P.O. Box 399, Peking. Import and export of books and periodicals in Chinese and foreign languages. Arranges subscriptions to Chinese newspapers and periodicals on behalf of foreign readers.

Foreign Trade Transportation Corp., Erh Li Kou, Hsi Chiao, Peking. Arrange Customs clearance and delivery of import/export cargoes by land, sea and air, or by post. May act as authorized agents clearing and delivering goods in transit through Chinese ports. Arranges marine and other insurance, and institutes claims on behalf of cargo owners on request.

Presidential Actions Head April Official Trade Moves

This article is another in a series of monthly reports outlining actions by domestic, foreign, or international agencies affecting world trade, as compiled by the Legislation and Tariff Analysis Division of the Bureau of International Commerce's Office of International Trade Policy.

THE PRESIDENT

Footwear: On April 8, Peter Peterson, Assistant to the President and Executive Director of the Council on International Economic Policy, reported that President Nixon had announced to the Council the need for further examination of the implications of the non-rubber footwear escape clause case (see Feb. 8 issue, Page 42). According to Peterson, the President indicated that additional study was necessary in light of important foreign policy implications, as well as important implications for major U.S. export interests. At the same time, the President announced that he would send Ambassador David Kennedy to consult with major U.S. trading partners in Europe, the Far East, and Latin America to examine outstanding problems in international trade, including citrus, tobacco, grains, textiles, and footwear, with a view to finding appropriate and constructive solutions.

Also, the President, on April 8, accepted the determination of the two Commissioners finding import injury in 11 adjustment assistance investigations initiated on behalf of unemployed and underemployed shoe workers and directed the Secretary of Labor to certify over 3,000 workers eligible to apply for adjustment assistance. Workers at the following plants are affected by the decision: Jodi Shoe Co., Derry, N.H.; Maine Shoe Corp., Brunswick, Me.; Foot Flairs, Inc., Manchester, N.H.; Brown Shoe Co., Mattoon, Ill.; Goldberg Bros., Inc., Haverhill, Mass.; National Ballet Makers, Inc., Medford, Mass.; Stage Door, Inc., Raymond, N.H.; Kramer Shoe Co., Haverhill, Mass.; Evangeline Shoe Corp., Manchester, N.H.; Bella Mia Footwear Mfg. Corp., Brooklyn, N.Y.; and Johnson, Stephens & Shinkle Co., Vandalia, Ill.

Trade with China: As part of his announced intention "to create broader opportunities for contacts between the Chinese and American peoples," the President issued a proclamation on April 14 which would permit U.S. exports of a non-strategic nature to China and direct imports of designated items from China (see this issue, pages 4-9).

Soluble Coffee: In transmitting to Congress the 1970 annual report on operations of the International Coffee Agreement of 1968, the President announced agreement with Brazil regarding the soluble coffee dispute. Under the agreement: Brazil will exempt an agreed quantity of green coffee (560,000 bags for the 12-month period beginning April 15) from its export tax for purchase by U.S. manufacturers of soluble coffee, enabling them to buy Brazilian beans at prices roughly equivalent to those paid by Brazilian processors; the amount of tax-free coffee is subject to renegotiation if Brazilian exports of soluble coffee increase or decrease by 15 percent over an agreed base; and Brazil will drop the 13 cents-per-pound export tax it has been applying on soluble coffee. The agreement, effective April 15, will remain in effect while both countries are members of the ICA.

Citing the Agreement's benefits to American consumers and coffee producing countries, as well as the resolution of the soluble coffee problem, the President urged timely Congressional action to extend U.S. participation in the International Coffee Agreement until Sept. 30, 1973, when the Agreement terminates. During the last Congress, legislation was enacted extending U.S. participation until June 30 and requiring the President to report to the Congress on or before April 1 on the benefits of the Agreement.

CONGRESS

Trade Legislation: On April 5, the Senate passed and cleared for the House S. 581, which would encourage expansion of U.S. exports (see article in this issue, Page 54). Also, the Senate passed a sense of the Senate resolution (previously adopted without dissent by the Senate Finance Committee) calling on the President to retaliate against the Common Market unless it rescinds within 60 days those measures in the European Economic Community (EEC) preferential trade agreements with Spain, Israel, Morocco, and Tunisia, which discriminate against U.S. citrus exports. The House Committee on Agriculture adopted a similar resolution and forwarded it to the Secretary of State.

Through April 20, approximately 195 trade and related bills were introduced in the 92nd Congress. About 65 were import quota bills for specific products or product groups and 5 were general orderly marketing bills, applicable when imports surpass stated levels of domestic consumption. No new quota bills have been introduced since last month.

New legislation, not previously reported in this column, would amend the U.S. tariff laws by: repealing provisions 807.00 and 806.30 of the Tariff Schedules (H.R.7057) grouping cordage products together in the Tariff Schedules (H.R.5677); limiting for certain U.S. vessels the duties im-

posed on equipment and repair parts purchased in foreign countries (H.R.7155); and granting certain Romanian imports most-favored-nation duty treatment (S.1389). Other new trade-related bills would: amend the Fair Labor Standards Act of 1938 and establish procedures to relieve domestic industries and workers injured by low-wage imports (H.R.73130); prohibit importation of harp seal furskins and articles thereof (H.R.7122); prohibit importation of products from Communist countries if importation of similar products from free-world countries is prohibited (H.R.4947); continue the Export Administration Act for 4 years (S.1487); amend provisions of the Revenue Act of 1916 with regard to predatory dumping (S.1476); and terminate the sugar quota for South Africa (S.298).

Committee Action: On April 22, the Senate Committee on Interior and Insular Affairs reported to the Senate floor S. 860, a bill relating to the Trust Territory of the Pacific (Micronesia). Title IV of the bill extends to the Trust Territory duty-free treatment now applicable to the insular possessions (Virgin Islands, Guam, and American Samoa). The action followed public and executive sessions.

The Joint Economic Committee, in its 19th Annual Report, recommended several ways that the Administration could fight cost-push inflation, including relaxation of "voluntary," as well as mandatory, restrictions which can be modified or removed by Executive Order. Specifically, the Committee stated that increased imports of oil, steel, textiles, beef, and sugar could make a major immediate contribution to price stability.

On April 19, the House Agriculture Committee opened two weeks of hearings on extension of the Sugar Act. This Act allocates among domestic and foreign sources the domestic market for sugar, and thus has a major impact on the economies of foreign suppliers, as well as on sugar-producing regions of the U.S. Sessions to date have been heavily attended by representatives of domestic and foreign industry and by those seeking redress of grievances through changes in quota allotments.

The General Subcommittee on Labor of the House Education and Labor Committee held hearings during April on amendments to the Fair Labor Standards Act of 1938 (H.R.7130). One title of the bill would establish procedures for providing relief to domestic industries and workers injured by imports from low wage areas. It would also impose restrictions on government procurement by requiring that foreign suppliers for any federally funded or guaranteed contract maintain wage and work conditions not substantially less favorable than those required within the U.S.

On April 29 and 30, the Environmental Subcommittee of the Senate Commerce Committee held hearings on fish inspection legislation, including S.296, S.700, and S.1528. These bills would authorize establishment of standards and inspection of domestic and imported fish and fish products.

In another development, Senator Russell Long (La.), Chairman of the Senate Finance Committee, announced the appointment of a special Subcommittee on International Trade, chaired by Senator Abraham Ribicoff (Conn.). The Subcommittee will be exploratory, not legislative, and will examine major foreign trade issues, considerations and implications, such as the most-favored-nation principle; the GATT's ability to cope with tax, agriculture, balance of payments and trade problems; tariff and nontariff barriers; and customs valuation.

TARIFF COMMISSION

Adjustment Assistance—Firms: In April, the Tariff Commission reported its findings for three investigations instituted on behalf of domestic firms alleging import injury. The Commission unanimously ruled that the Bernie Shoe Co., Haverhill, Mass., a manufacturer of women's footwear, is not eligible to apply for adjustment assistance. The other two decisions, evenly divided (2-2), involved the Louis Shoe Co., Amesbury, Mass. (women's dress shoes) and the Bel-Tronics Corp., Addison, Ill. (radio and television receivers). Under the law, the President may consider the findings of either group of Commissioners as the determination of the Commission. If he agrees with the affirmative findings, he may rule the two firms eligible to apply to the Secretary of Commerce for adjustment assistance certification.

The Commission during April also opened a new case on behalf of Sprague Electric Co., N. Adams, Mass., a manufacturer of electrical capacitors, to determine whether that firm is eligible to apply for adjustment assistance. A decision in the case is due May 14.

Adjustment Assistance—Workers: The Commission issued five reports during April involving investigations on behalf of worker groups alleging import injury.

Those affected are: 500 workers of the American Bosch Div., AMBAC Industries, Inc., Springfield, Mass. (fuel injection pumps and nozzles thereof for diesels); 275 workers of the Beaunit Corp., American Bemberg Plant, Elizabethton, Tenn. (cuprammonium rayon yarn); 90 workers of the Carpenter Technology Corp., New Brunswick, N.J. (stainless-steel wire); 850 workers of the Emerson Television & Radio Co., Jersey City, N.J. (television receivers, radios, and phonographs); and 250 workers at Advance Ross Electronics, Washington, Iowa (transformers for television).

The Commission found three groups ineligible to apply for adjustment assistance and was evenly divided (2-2) regarding the eligi-

bility of the two other groups. The tie votes send those cases to the President for final determination. American Bosch, Carpenter, and Beaunit were the negative cases; Advance Ross and Emerson were the evenly divided cases.

In addition, the Commission has opened new investigations to determine the effect of imports on eight petitioning groups of electronic components workers. Seven concern an undetermined number of workers at Sprague Electric Co. plants in six states and the other concerns 1,200 workers at an RCA plant in Cincinnati, Ohio.

Dumping Cases: Completing investigations on three cases of alleged dumping previously referred to the Commission by Treasury (see Feb. 8 issue, Page 43), the Tariff Commission ruled 4-1 (Leonard dissenting) on April 7 that the following imports, sold at less than fair value prices, have caused or threatened injury to domestic industries: ceramic wall tile from the U.K.; clear sheet glass from Japan; and clear plate and clear float glass from Japan. Imports of these items, sold in the U.S. at prices below those in the exporters' home market, will become subject to special dumping duties.

Section 337 (Unfair Import Competition)—Meprobamate: Completing its preliminary investigation concerning alleged patent infringement by at least 7 importers of meprobamate, the Tariff Commission on April 23 ordered the institution of a full investigation and recommended unanimously that the President issue a temporary exclusion order. The original complaint was filed by Carter-Wallace, Inc., of New York City (see *International Commerce*, Oct. 5).

Section 22 Investigation—Cheeses: The Tariff Commission held public hearings April 20-22 in connection with its Section 22 investigation concerning the effects on domestic price support programs of certain cheese imports having a purchase price of 47 cents or more per pound (see April 5 issue, Page 36). The Commission heard testimony from officials of the U.S. Department of Agriculture and representatives of the domestic industry, foreign suppliers and importers. Statements from several Wisconsin Congressmen were also submitted for the record.

Watches and Watch Movements: As required by law, the Tariff Commission has found that the apparent U.S. consumption of watch movements for the calendar year 1970 was 45,481,000 units and that the number of watches and watch movements which may enter the U.S. duty-free from the insular possessions during calendar year 1971 is as follows: Virgin Islands, 4,421,375; Guam, 420,915; and American Samoa, 210,710.

OTHER AGENCIES

Treasury-Dumping Cases: During April, the Treasury Department announced four decisions on anti-dumping investigations. The first was a finding of less-than-fair-value sales for clear sheet glass from Taiwan and referral of the case to the Tariff Commission. Appraisement has been withheld on such imports since Jan. 22. The second was a final determination of no sales at less than fair value regarding imports of sheet glass from Belgium. The other two decisions involved discontinuance of anti-dumping investigations concerning precision miniature and instrument ball bearings and electron probe microscopes from Japan. The discontinuance notices were based on assurances from foreign manufacturers that no future sales will be made at prices below those received for the products in Japan. Similar preliminary determinations for all three cases had been issued in January (see Feb. 8 issue, Page 43).

Following summary investigations, Treasury announced the opening of three new inquiries during April to verify information with respect to alleged dumping of: shoeboard from the United Kingdom, cold rolled stainless steel sheets from Japan, and elemental sulfur from Mexico.

Treasury—Revision of Antidumping Regulations: The Treasury Department announced April 12 its intention to conduct a review of the Antidumping Regulations as the result of increased interest in the Act since a broad review two years ago. Interested persons are invited to submit suggestions for improving the Regulations within 60 days to the Commissioner of Customs, Washington, D.C. After a careful review of all submissions, which should be accompanied with specific language designed to implement the proposal, Treasury will publish a notice of proposed rule making in the Federal Register for any specific revisions contemplated.

Customs—Country of Origin Marking: The Bureau of Customs has ruled that an exception from Country of Origin labeling requirements for imported cast iron soil pipe and fittings is no longer warranted. The decision was based on three main considerations: cast iron soil pipe and fittings were not imported in substantial quantities during the 5-year period immediately preceding Jan. 1, 1937, when marking was not required; such articles are large enough to be marked without unusual difficulties; and such articles can be mingled with domestically manufactured pipe and fittings before they reach the ultimate U.S. purchaser.

Foreign Assets Control—Paint Brushes: The Office of Foreign Assets Control has announced that certificates of origin issued by the Government of Singapore are now available with respect to importation into the United States directly, or through a bill of lading, of paint brushes made with hog bristles. (*Fed. Reg.*, March 24).

Commerce—Adjustment Assistance: The Commerce Department has certified two more piano firms

eligible to apply for adjustment assistance: Everett Piano Co., South Haven, Mich., and Grand Piano Co., Inc., Morganton, N.C. Application by the piano firms followed a Tariff Commission finding of injury to the domestic industry and Presidential authorization for firms and workers in the industry to apply for adjustment assistance (*International Commerce*, Jan. 12 and March 16, 1970).

The firms must now submit to the Commerce Department an adjustment assistance proposal designed to materially contribute to the firms' economic development.

Commerce—Removal of Export Controls: On April 16, the Commerce Department announced removal of export control regulations for walnut logs, bolts, lumber and veneers and for certain semifabricated forms of copper. U.S. producers may now export these commodities without a validated license from Commerce (exception: exports to S. Rhodesia, Cuba, and communist countries of Far East). Commerce announced, however, that the domestic supply/demand situation for walnut commodities still requires monitoring and that certain producers will be sent questionnaires.

Further information may be obtained by purchasing Current Export Bulletin No. 41 at 25 cents a copy from the U.S. Department of Commerce or any of the Commerce Department's 42 Field Offices located in major cities throughout the country.

Agriculture—Fruit Import Regulations: Pursuant to section 8e of the Agricultural Marketing Agreement Act of 1937, as amended, the Department of Agriculture has promulgated revised regulations for imported dates and grapefruit. Section 8e prohibits importation of specified fruit and vegetables unless they conform to the same requirements of size, grade, shape and color as fruits and vegetables shipped under marketing orders in the United States.

INTERNATIONAL

Foreign Dumping Actions: The Canadian Antidumping Tribunal has found that certain imports of single-use syringes manufactured in the United States and in Japan are being dumped in the Canadian market and are causing injury to Canadian producers. This finding concludes an investigation begun last August which originally included both single-use syringes and needles. Antidumping duties have been levied on those syringes imported after Dec. 4.

Generalized Preferences: Both the Japanese Government and the European Economic Community (EEC) have scheduled implementation of preferential tariff treatment for imports from less-developed countries. The EEC has announced that it will implement its scheme July 1, and the Japanese Diet has passed enabling legislation instructing the Executive to implement the Japanese import tariff preference arrangement by Oct. 1.

The Japanese and the EEC preference plans are based on a tariff quota mechanism which establishes an annual ceiling on the quantity of any manufactured or semi-manufactured item which can be imported from a less-developed country at the preferential rate of duty. Imports of an item exceeding the quota will be dutiable at the most-favored-nation rate. In addition, no beneficiary country will be allowed to supply more than a specified percentage of the total quota for any item.

At present, some 91 developing countries are expected to be included as beneficiaries in the EEC scheme. A number of additional countries, primarily in the Mediterranean area, are also being considered for inclusion in the EEC generalized preference arrangement. The Japanese Government has not yet announced which developing countries will be participating in its generalized preference scheme.

Curbs On Exports To Romania Eased

Secretary of Commerce Maurice H. Stans, meeting in Bucharest April 26 with President Nicolae Ceausescu of Romania, to discuss trade and investment matters of mutual interest, told him the Commerce Department is further relaxing controls over the export of commodities to Romania. Nearly 100 entries on the Department's Commodity Control List are being decontrolled, thereby permitting a wide range of commodities not under international control to be shipped to Romania without validated export licenses.

Such licenses will continue to be required for shipment of these commodities to the U.S.S.R. and other European countries, the Far East communist destinations and Cuba. The action will not, however, affect the Department's existing controls on shipments of technical data to Romania. The Office of Export Control of the Department's Bureau of International Commerce expects to announce details of this decontrol action shortly in an Export Control Bulletin.

In the investment area, Secretary Stans was particularly interested in a new foreign investment law passed in Romania on March 17, which will enable private firms of non-socialist countries to obtain certain equity rights and provide for profit and capital repatriation. The latter would be guaranteed by the Romanian Government (see story, Page 53). Secretary Stans has been closely following the joint-venture negotiations of U.S. companies in Romania and discussed overall progress with President Ceausescu and Foreign Trade Minister Cornel Burtica.

Secretary Stans' visit to Romania is part of a six-nation tour which includes Ireland, Spain, Greece, Iran and Austria. It began April 17 and concludes May 4.

Four October Exhibitions Give Firms Access To European, Asian Markets

Japan's production of electronics equipment in 1970 is projected topping $9 billion, for an average annual increase of 33 percent. U.S. manufacturers and exporters supplied $275 million worth of electronics products to Japanese buyers in 1969 for a 40 percent rise over 1968.

Assisting U.S. firms in further tapping this lucrative market will be the Fourth U.S. Electronics Exhibition in Osaka, Oct. 1-7. The U.S. show will be part of the annual international Japan Electronics Show sponsored by the Electronics Industry Association of Japan.

U.S. Promotions List

A listing of sales opportunities for U.S. firms in seven U.S. commercial exhibitions, trade fairs and solo displays and 17 shows at the eight U.S. Trade Centers is presented in this issue starting on page 56.

Last year at the third U.S. show in this trade fair, first year sales projections of almost $20 million were made by the 77 represented American firms.

The estimated value of Japan's 1970 industrial electronics production is $2.5 billion, a 25 percent increase over 1969, including $472.8 million for semi-conductors and $211.2 million for integrated circuits.

Call William E. Dawson, 202-967-5286, Department of Commerce, BIC-936, Washington, D.C. 20230, or contact any Department Field Office.

Assembly equipment

German manufacturers and mass producers are requiring more sophisticated industrial assembly equipment, including modern labor-saving devices which ease worker shortages.

To promote American sales in this field, an exhibition of advanced industrial assembly equipment and supplies is scheduled for the U.S. Trade Center in Frankfurt, Oct. 11-15.

It is estimated that only 10 percent of the potential German market for industrial fasteners, adhesives and assembly equipment has so far been tapped, creating opportunities for U.S. firms.

Call William S. Gaines, 202-967-4073, Department of Commerce, BIC-938, Washington, D.C. 20230, or any Commerce Field Office.

Cooling, refrigeration units

The United States is the leading supplier of air conditioning and refrigeration equipment to the French market. Growing at 17 percent a year, the refrigeration sector consumed almost $30 million worth of equipment last year. It is estimated that consumption of air conditioning equipment reached $40 million for 1970.

To help American companies expand their sales in this market, the Commerce Department will stage an exhibition of industrial and commercial air conditioning and refrigeration equipment at the U.S. Trade Center in Paris, Oct. 18-22.

The growing market for this equipment is boosted through changing living patterns, the growth of self-service restaurants, new construction practices, and modernization of the French industrial and commercial sectors.

Market research shows the following products to be among the most saleable equipment: cold chain systems, including quick-freeze and refrigerated railroad cars; commercial and industrial ice flake and cube machines and freezers; cold storage equipment; and industrial refrigeration equipment for stocking gases and petroleum by-products.

Call John Wolf, 202-967-4974, Department of Commerce, BIC-936, Washington, D.C. 20230, or contact any Department Field office.

Advanced business systems

An audience representing Italian banks, insurance companies, warehousing operations, retail chains, manufacturing industries, original equipment manufacturers and government agencies will be invited to a display of advanced business automation equipment at the U.S. Trade Center in Milan, Oct. 26-31.

The American exhibition will be held concurrently with the Eighth International Exhibition of Office Machines & Equipment (SMAU), which will be staged at the Milan Fair Grounds adjoining the Trade Center's facilities.

An indication of the Italian trend toward advanced business systems is the growing use of EDP equipment. Installations in 1963 were valued at $280 million; by the end of 1970, an estimated 3,500 units were valued at $550 million. By 1975, projections show 6,000 computers installed or on order, worth an estimated $1 billion.

Call Herb H. Lindstrom, 202-967-3944, Department of Commerce, BIC-944, Washington, D.C. 20230, or contact any Department Field Office.

Exhibitors Jam Sydney Center For Graphic Arts Promotion

All 25 participants in and exhibition of graphic arts equipment at the U.S. Trade Center in Sydney, Australia, couldn't squeeze their 75,000 pounds of equipment onto the showcase's display floor. So, eight exhibitors mounted booths in the Center's second-floor offices.

BINDER AT WORK—*At an exhibition of graphic arts equipment in the U.S. Trade Center, Sydney, a Macey Multibinder gathers and binds pages. Don Maloney, right, of Harris-Seybold, explains the binder to a visitor during the March exhibition.*

AT FRANKFURT—*Explaining an oscilloscope to a Trade Center visitor is a German representative of Telonic Industries.*

More than $7 million in first year sale are anticipated from the Mar. 22-26 event, including almost $1.9 million in orders written during the show. Attendance reached 2,094.

One exhibitor, seeking agents through the show, appointed two representatives and is negotiating with four other prospects. All of the 25 participants reported fully achieving their primary marketing objectives.

FINN & FRAM—*Morris Fram, right, shows a roving custter to a customer in Paris during a plastics display.*

Ohio Firm Follows Up Leads After U.S. Show in Germany

Brush Instruments Div., Gould Inc., Cleveland, is following up 300 sales leads made during an exhibition of analog and digital measuring and recording instruments at the U.S. Trade Center in Frankfurt.

The Ohio firm was one of 51 companies participating in the Mar. 15-19 show which drew 750 visitors. Projections of more than $3.3 million in first year orders are anticipated by the exhibitors in the event.

A three-day symposium coincided with the show and drew up to 300 specialists per session.

Incre-Data Corp., Albuquerque, N. Mex., one of five firms seeking representatives, appointed an agent during the exhibition. Negotiations with 13 additional candidates were in progress at the show's end.

Pelletizer Firm Makes Sales At Plastics Production Show

Displaying pelletizers, Egan Machinery Co., Summerville, N.J., ended the Mar. 1-5 exhibition at the U.S. Trade Center in Paris with first year sales estimates of $1 million. The plastics production equipment and controls show is projected returning more than $4.2 million in total 12-month sales to the 39 participants.

Fifteen exhibitors were seeking agents, distributors, licensees and joint ventures in France, and 17 were interested in agreements for Europe and Israel. Six representatives were contracted during the show, including five for the French market, and 32 other candidates were being reviewed at its close. An audience of 657 registered for the promotion.

With first year sales projections of over $250,000, C. J. Berlinger Co., Inc., Marblehead, Mass., appointed an agent for France and is negotiating with two additional representatives. Berlinger displayed automatic screen changers.

Swiss Imports Soar As Upturn Heads For Peak

The Matterhorn still towers over Switzerland, but foreign herdsmen abound in its foothills; the lakes have lost some of their sparkle; and most sacrilegious of all, traces of DDT have been found in a Swiss cheese. Such developments show the reverse side of the economic boom which the Swiss have been enjoying for over a decade and which will probably reach its peak in 1971, reports the U.S. Embassy in Bern.

Despite rising wages, increasing raw material costs, and a critical labor shortage, industrial production moved at record levels in the past year, spurred on by a lively demand for Swiss goods on European and overseas markets and an unprecedented increase of about 20 percent in domestic investments. Exports rose by 13 percent, from $4.6 billion in 1969 to $5.2 billion.

With industry operating at practically full capacity, average order backlogs lengthened. Some sectors, notably the textile machine industry, reported order backlogs of up to five years. Domestic suppliers were often unable to fill orders from local customers. Imports, therefore, soared by 25 percent, totaling $6.5 billion.

U.S. holds position

The United States maintained its position as fourth major supplier to the Swiss market, after West Germany, France, and Italy, with 8.5 percent. In absolute terms, U.S. sales to Switzerland totaled $551.6 million, a jump of 23.4 percent.

Principal U.S. items on the Swiss import bill in 1970 were aircraft and aircraft parts; road vehicles and parts; organic chemicals; business machines, including electronic data processing equipment; electric and electronic measuring devices; and precious metals, jewelry and stones. No doubt these products will continue to be best-sellers, with only slight variations in the order of importance, in the course of the next few years.

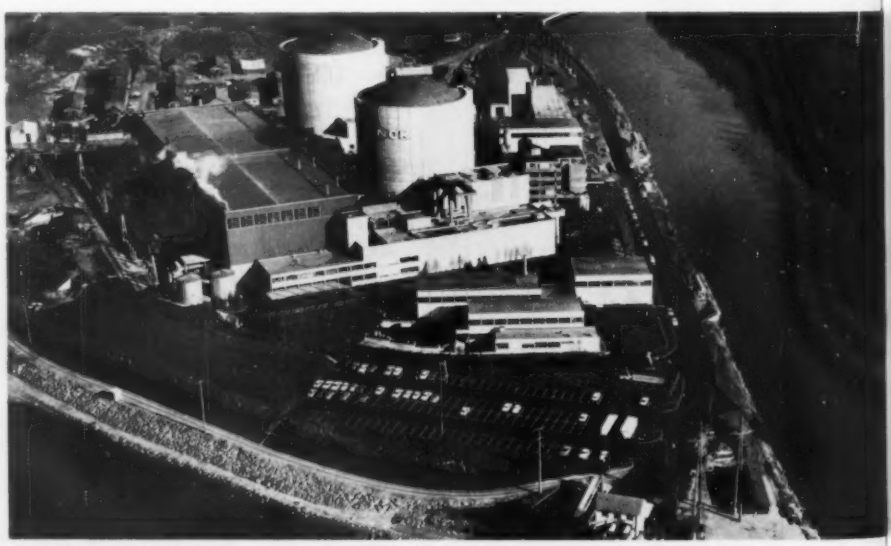
In this growth market, the best U.S. rates were achieved by iron and steel, imports of which went up by 164 percent, business machines (+150 percent), communications equipment (+75 percent), printing machines and accessories (+65 percent), and packaging machines (+57 percent).

After several years of near stagnation, construction activity has picked up with a vengeance. Nineteen-seventy showed a 17 percent increase in public building and a 24 percent rise in private construction. The volume of projects completed in 1970 is believed to have exceeded $4 billion. This growth rate will probably not be matched again in the immediate future due to an increasingly severe labor shortage, but growth rates of between 15 and 20 percent are nevertheless expected.

Good export opportunities exist, therefore, for U.S. construction machinery. Despite higher prices, U.S. equipment is very popular here and sets a hot pace for competitors. Items most favored are heavy-duty bulldozers, wheel and crawler-mounted loaders, large excavator shovels, scrapers, graders and trenchers.

No less than ten major tunnels are to be completed in the next decade. On the boards also is a subway system in the City of Zurich. Tunnelboring machines should have a heyday.

Sales of American business machines and electronic data processing equipment advanced last year by 150 percent. The market continues to be receptive, particularly for over medium-sized computers as well as for small, desk-type units. Punched card systems, high speed printers, data collection and data recording and storing equipment, and data transmission equipment are other items that sell well. Among business machines, good



SWISS ENERGY—*This nuclear power station at Beznau, equipped with an American water reactor of 350 MW, supplies 10 percent of Switzerland's electric energy requirements. An identical plant on the same site will become operational by 1972.*

SWISS CHALET, U.S. STYLE—*New American-owned hotel at Zurich airport fills need in rapidly expanding tourist industry.*

opportunities exist for photocopiers, duplicators and bookkeeping and accounting machines.

The success of the fifth International Exhibition of Industrial Electronics which took place in Basel recently confirmed that stronger demand than ever exists in this country for system electronics; microelectronics; electronic measuring, control and digital devices; and medical electronics.

Once insurance companies start offering the incentive of reduced premiums to establishments which take the trouble of installing adequate fire fighting and alarm systems, there should be a virtually untapped market here for U.S. suppliers of such installations, especially if prices and payment conditions are attractive. A major handicap to the more widespread application of safety installations has been their prohibitive cost.

Cautious and conservative by nature, a Swiss will not buy a product simply because it is new. But if a new product, a novel process, or an existing product made of unusual materials offers real progress and advantages, he is the first to buy it. Therefore, pumps, for example, or conveyor belts made of teflon and other synthetic, corrosion-resistant materials will sell well in the chemical, pharmaceutical and food processing industries. So will easily serviceable slush and sludge pumps for the construction industry.

Advanced materials handling equipment, novel food processing and packaging machines, self-service counters and food service systems, cafeteria conveyors, and automatic food and beverage dispensers will find widespread interest in the Swiss food processing, hotel and catering industries which are among the worst hit by the labor shortage.

Pop-up or ring-pull cans, until now confined mainly to beer, soft drinks, coffee, fish, meat and spreads have a bright future here if U.S. suppliers can adapt them to tinplate. Great demand also exists for novel types of packaging materials, such as ultra-thin polythene wraps, or for a plastic bottle which does not create disposal problems.

A certain amount of prudence and market research is dictated for containers and packaging materials since the Swiss are becoming dramatically more pollution conscious. Packaging materials which are disposable or biodegradable have the best prospects.

Solid waste disposal is indeed a field receiving much attention at present in Switzerland. However, the country is largely self-sufficient in the supply of incinerators and compost plants. On the other hand, specific items of American equipment for treating waste water and protecting surface and ground water should find a rapidly expanding market here. Switzerland plans to spend approximately $100 million annually over the next ten years on ambitious programs to control water pollution.

Important trade fairs of interest to U.S. manufacturers to be held later this year in Switzerland include: FERA, Swiss Radio, Television and Audio Show, Zurich, Aug. 24 to 30; ILMAC, International Exhibition of Laboratory Techniques and Chemical Engineering, Basel, Sept. 13 to 15; and IPHARMEX, International Pharmacy Exhib., Basel, Oct. 1 to 5.

The Swiss Government is presently exploring with the European Communities the possibilities of some acceptable form of economic "arrangement" which will safeguard Swiss neutrality. It is too early to forecast what even the broad lines of such an arrangement might be. In the meantime, the Swiss continue trading with the world and their current economic policy remains distinctly favorable to U.S. sales. In any case, however, the Swiss position is that any arrangement should be compatible with the provisions of GATT, which will go far to assuring that the U.S. trade position in Switzerland is not materially altered, whatever the outcome.

India Gives Top Priority To Economic Expansion

"If the last five years with their drought and uncertainties can be characterized as a period of planning, perhaps over-planning, the next five years must be devoted to production, production, and more production." One of India's top government officials spoke this way last month after the stunning upset victory of Prime Minister Indira Gandhi's Ruling Congress Party, reports Eugene H. Bird, Acting Counselor for Commercial Affairs at the U.S. Embassy in New Delhi. The party holds a clear two-thirds majority in the Parliament. The Prime Minister has a mandate and an image that overshadows all opposition figures. The trick will be to turn this mandate into an economic miracle by accelerating production on both farm and factory fronts.

Can it be done?

Some say that it cannot be done, that the old problems of low productivity rates and low investments will continue to produce a growth rate barely above India's population increase. But a projection to the year 1980 by a Swiss economic magazine suggests that a doubling of India's gross national product to more than $90 billion is possible.

Even then India will have only $136 of GNP per capita but the country will clearly be arriving at a point where development of her basic wealth in land and mineral resources, combined with her strategic location and reservoir of skills, will make her much more of an industrial power to reckon with in world trade. Economic planners are already talking of building infrastructure and making plans for a population of one billion, since studies show that this number of Indian consumers will be reached within a few decades, regardless of the relative success of her current family planning program.

Aware of these projections, Prime Minister Gandhi has already announced that economic growth will be her first priority and the new cabinet ministers have already indicated that larger supplies of both agricultural and industrial raw materials, particularly steel, will have to be found. The interim budget that has just been presented is not notably expansionist, however, and the final budget of the new Government will not be presented till late in May.

Maximum growth

There is general agreement that it will be a maximum growth budget. Both for investment in new plant and in supporting India's present factories with needed imports of industrial raw materials, the budget is expected to provide substantially larger appropriations than last year. It should open up real opportunities for U.S. exporters.

The year 1971 opened with almost five million tons of grain in storage. Production this crop year (same as U.S. fiscal year), if the good monsoons continue, may be in excess of 104 million tons. In 1970, India bought almost three-quarters of her imported wheat from the United States under Public Law 480, but the Government has officially stated there will be no more concessional wheat imports after 1971.

The meaning of the election is, according to some observers, a genuine yearning for economic independence. The emphasis will be on exports and on building India's image in the world by meeting specifications and winning tenders against international competition.

The Indian steel industry has been producing at only 65-70 percent of capacity, and there has been a critical steel shortage following the end of the mid-sixties recession. The new Minister of Steel aims at jumping production by 10 percent, but meanwhile there are opportunities not only in exporting steels of all kinds to India but in furnishing technical and managerial skills to improve production facilities.

Applications for industrial licensing swung up sharply in the past year, and reached 2,300. Six hundred licenses, the largest number in four years, were approved. The list of American investors (many of them trying a second time after many years of ignoring India) who succeeded in procuring a license in 1970 totals more than two dozen. These include fertilizer-related plants (including basic industrial chemicals), synthetic fibers, pharmaceuticals, international class hotels, publishing, injection molding machinery, and electronic connectors. Important new applications by U.S. corporations now pending include automobiles, tourism development schemes, railway equipment, tractors and other agro-industrial equipment, and glass for television.

U.S. still number one

In direct trade itself, the United States continues to be number one in the Indian market both for supplying goods and as a market for Indian goods. Over $200 million in commercially financed sales of U.S.-origin products went to India last year and an uncounted amount of goods supplied also were imported from U.S. overseas subsidiaries.

Jute, tea, cashews and textiles still dominate the flow of Indian goods to the United States but continued efforts, including the sending of at least three Indian engineering industry teams to the United States during 1970, have resulted in increased exports of hand-tools, some machine tools, hand-finished castings, and pump parts to America. Shoes have become an

item of real interest to some U.S. firms. With the largest animal population in the world, India can be expected to grow in importance in providing shoes for the world market. More sophisticated machinery is needed in both textiles and shoe manufacture.

The new Government recently announced that there would be a delay in setting the import policy for the present fiscal year, but made clear in a recent exchange between the Foreign Trade Minister and members of the new Parliament that imports will more and more be channeled through state sector buying organizations. However, the Minister also made clear that there would be a continuing role for private importers, in accordance with the philosophy of a mixed economy. The State Trading Corporation, which is now importing and exporting almost $300 million a year, is expected to establish an office in New York City by the end of 1971.

The Fourth Plan is likely to be enlarged and modified by the new Planning Commission. There seems little doubt that India will import more in the current five-year period than in the last five years in virtually every category other than food grains. Last fiscal year, her imports totaled more than two billion dollars and, although there was a sharp reduction in grain imports, industrial raw material imports are now rising. Already, looking forward to the Fifth Plan, which is slated to begin in 1974, the need for electrical generating capacity alone indicates that at least two or three very large thermal power plants will need to be constructed.

The Fourth Plan goal of an annual growth of seven percent in exports should come close to reality in the current fiscal year. However, despite requirements that both new and old companies seeking expansion should earn their own needed foreign exchange with exports, increased need for raw materials and constant critical shortages in key metals have caused some doubt that India can continue her growth in exports without new and more liberal policies in welcoming foreign investment and in permitting imports of lower-priced materials to meet shortages.

The United States has partially untied A.I.D. commodity loans for supply of most commodities, giving India a chance to compete to supply items to other less developed countries. However, the opportunities for bidding on IBRD and other internationally-financed tenders to supply needed new capital-formation equipment and more sophisticated machinery to India could easily more than make up for any loss of direct U.S. A.I.D.-financed sales. Furthermore, many Indian subsidiaries of American firms will be doing the bidding on the A.I.D.-financed tenders from other lesser-developed countries.

Uruguay, Buffeted By Problems, Still Manages To Increase Output

After performing well in the first seven months of 1970, Uruguay's economy has been buffeted by a series of problems which remain unresolved in the second quarter of the election year of 1971. Paralleling the upsurge in urban terrorism, net foreign exchange reserves declined sharply, imports have surged ahead, the free market peso exchange rate has pulled away from the official rate, and decreasing investment may eventually slow further economic growth. While relative price stability continues after 32 months, relaxed controls on credit expansion and broad wage increases may weaken the price-wage controls which are still in force. In a reversal of policy, new travel and import restrictions have been imposed to reduce the widening balance of payments gap.

Brighter side, too

The U.S. Embassy in Montevideo reports that there have been positive developments as well, however. For the first time in many years, Uruguay has now experienced two consecutive years of significantly higher economic growth, exports are proceeding at record highs, more responsible labor bargaining is enabling rises in output and productivity, and good weather continues to favor agriculture. Vital in the coming year will be the successful coordination of monetary, fiscal and balance-of-payments policies, improved allocation of credit to producers, and confidence in the government's ability to maintain order.

Bolstered by the third respectable agricultural harvest year in a row, thanks to continuing good weather, gross domestic product in 1970 rose in real terms an estimated 5 percent to US$1.9 billion, and is expected to increase again in 1971 if the good weather holds. Generally unfettered by severe strikes, industrial output set the pace with 7 percent growth in the first 9 months of the year. Building construction, long in the doldrums, promises to pick-up in 1971 with over 7,000 government-financed housing units under construction. In agriculture, corn yields are expected to continue to increase, but grain and rice plantings have been cut back. Impressive investment in the meatpacking industry has followed rising meat export prices.

Overall investment in industry and domestic sales, however, generally have slowed and reflect uncertainty over 1971's economic and political directions. While a number of expansion projects have been postponed by U.S. and local firms, more Uruguayan in-

dustrialists are coming to believe that the only plausible investments are those in export-oriented areas. As such investments in turn should be shared with a foreign partner who can help assure an export market, interest in joint ventures with foreigners is increasing. Growth generally remains bridled by the tightness and high cost of credit, the prime rate still approximating 30 percent per annum.

While the unhurried utilization of several international loans indicates hesitancy to invest, the availability of the credits continues to supply sales support for U.S. exporters. The $15 million U.S. A.I.D. capital goods loan implemented in early 1970 still has $10 million to disburse and has had its product list expanded from the categories of meatpacking, food processing, leather processing, extractive industries and fishing to a broad range of industrial items.

Public investment is expected to increase in 1971, and the government's efforts in carrying out agency projects last year indicate that its intentions are serious. In recent months the state airline PLUNA added two new U.S. turboprop aircraft to the jet passenger liner acquired in mid-1970, the state railway AFE has proceeded with the rebuilding of its diesel locomotive engines in the United States, and work on the two bridges to Argentina commenced.

Tenders to be issued

The official geophysical report on 1970's offshore oil exploration is expected soon. Should the report indicate a high likelihood of oil deposits, a tender for perforation testing of the seabed will be issued. Other calls for bids now open or tentative are for the construction of a dam and hydroelectric complex at Palmar for state power entity UTE, an offshore floating oil terminal and pipeline for petroleum entity ANCAP, and the design and re-equipping of the Port of Montevideo.

Uruguayan exports achieved a new high in 1970, with completed exports totaling $233 million, an increase of 16 percent over 1969, which in turn had been the best export year in 13 years. Imports, however, climbed 18.1 percent to $233 million. Heavy purchases of raw materials and car kits for assembly in the last four months of the year reversed a trade surplus of $11 million built up through August. Projections for 1971 see exports of $235 million.

Tax rebates raised

To compensate for increasing internal costs, the Government raised tax rebates on exports in January to stimulate exports, and initiated new import restrictions based on tighter "prior deposit" quotas for most goods. Both officials and importers point out, however, that the revised quotas are more fairly apportioned among buyers and that the brunt of the new restraints will fall on consumer items. Affected by related regulations, imports of vehicle kits in 1971 will be based on productive capacity, will be reduced 33 percent to $12 million, and will shift increasingly to truck assembly.

While Uruguay's LAFTA trade in 1970 suffered a recurring $36.5 million deficit, activity with the United States and Europe followed a more vigorous pattern in which West Germany emerged as a closer rival to the United States in the Uruguayan market.

Although Uruguay's approach to investment and substantial purchases promises to remain cautious through the year, U.S. exporters' hopes can be buoyed by a combination of abundant low-cost international credits specifically designed for machinery and equipment, the pressing needs of local factories which must modernize to compete in world markets, and the growing realization that business partnerships with foreign firms may spell the difference between success and failure in segments of Uruguay's increasingly export-conscious industry.

Expansion of the footwear sector, preferably in alliance with foreign interests, is receiving serious impetus. The nation's largest factory, a producer of rubber tires and related items, is planning machinery purchases of almost $1 million. World demand is obliging meat packing plants to accelerate improvement programs. The fishing industry, still dormant despite an attractive investment law enacted in December 1969, should be stimulated late this year with the completion of Montevideo's first receiving-processing-freezing terminal and is searching for investment funds and equipment. Backed by new government lines of credit, the tourism industry is looking for ways to improve and recoup this season's losses. Increased interest is also noted in helicopters, the "ice being broken" by the government's purchase of two large troop carrying craft and a leading sugar beet-cattle complex's acquisition of a lighter model. The automotive industry complementation agreement with Argentina, an arrangement which will secure expanding openings for Uruguayan-made car parts in Argentina's automobile industry, is directing interest to U.S. techniques and machinery.

Ironically, the fastest growing sales field for American manufacturers in recent months and the foreseeable future is due to the upsurge in terrorism and assaults on property. Security equipment in a full range of protective and communications devices is urgently demanded by public and private institutions.

Beyond the realm of sales, there is definite receptiveness to foreign investment, with mounting awareness of the value of outside cooperation in providing overseas markets and technical and managerial guidance, factors even more necessary than foreign financial assistance.

Israeli Economy Keeps Booming Despite Strains

Israel has been undergoing a major economic boom since the end of the Six-Day War of 1967. National output has forged ahead at a very rapid pace after a period of virtual stagnation beginning in 1966. War-related spending and pump-priming Government investment were instrumental in pulling the economy rapidly out of the doldrums of early 1967. There followed heavy business and consumer spending which helped to fuel Israel's fastest period of growth on record.

The U.S. Embassy in Tel Aviv reports that the civilian economic boom and heavy defense spending exacted an economic price in the form of a rapid deterioration in Israel's balance of payments situation, specifically a running down of Israel's foreign currency reserves, and more recently, of greater instability in domestic prices.

Diverse forces buffeted the economy in 1970 and subjected the system to severe strains. On the one hand, there was the economic imperative of controlling an overheated economy and of altering the allocation of resources away from rapidly rising private consumption to exports and other public needs. On the other hand, there was the domestic political problem of providing labor with a long-promised increase in wages. Superimposed on this already difficult situation were the balance of payments and internal costs of meeting the military challenge along the Suez Canal in the summer of 1970.

The proposed solution to the wage and resource allocation dilemma was a complex package arrangement designed to stabilize the domestic economic situation. Labor was given its higher income, principally in the form of future claims on wealth, rather than in immediate spending power. This freed available resources for other priority needs.

At about the time that labor policies began to produce some of the desired results, conditions were altered by changes in the international politico/military arena. To meet rising defense costs, stimulate lagging exports and curb the rise in less essential imports, the Government on Aug. 16 introduced additional new fiscal policy measures, principally in the form of higher indirect taxation. The main part of the program was the imposition of a 20 percent surcharge on the value of all imported commodities, with the exception of fuel and staple food products, and the establishment of a 20 percent tax rebate on all exports to compensate exporters for the higher taxes and to stimulate sales abroad. When added to the other export incentives provided by the Government, this program raised the effective exchange rate of IL 3.50 to $1.

Effects on economy

The effects on the economy of the boom and later increases in military spending and taxes were a widening of the balance of payments deficit and an acceleration in price changes. Total national output (GNP) in current prices in 1970 grew by over 17 percent to $5.5 billion or $1,850 per capita, but almost half of the rise was attributable to price changes. Imports rose much faster than expected to $2,580 million, with direct imports of military equipment rising by approximately $300 million to $630 million. Exports, on the other hand, rose at half the rate expected to $1,315 million. The result was an almost $400 million increase in the current deficit to $1,265 million.

The Government in 1971 plans to continue its basic post-war economic policy of rapid growth and full employment to meet security and other needs. Its most immediate concerns revolve around the existence of strong pressures for increased wages, incomes and prices and their influence on domestic demand and, ultimately, on the central problem of the balance of payments.

The targets have been formalized in an official Government forecast for 1971, which calls for a growth of national output in constant prices of 7-8 percent to $6.0 billion. Employment is expected to rise by roughly 2-3 percent, and productivity by 5 percent. Very fast growth is expected in investment and exports. The growth of public consumption will drop to 6 percent, following a very rapid rise in 1970. Private consumption is expected to grow approximately 3 percent per capita, or a bit faster than in 1970. Price developments over the twelve months of 1971 are expected to resemble those of 1970, excluding the price effects of the increases in indirect taxes in August 1970.

The policies adopted in 1970 have started to produce some of the desired trends. The growth of private consumption and civilian imports has been cut back from the highs of early 1970, and the increase in export incentives has given a much needed push to lagging exports. These trends can be expected to continue if wages and prices stay within the bounds established.

Uncertainties and problems

Yet, there are still many uncertainties and problems which must be overcome. The economic system last year was subjected to considerable strains. The impact of the changes in wages, prices and taxes will take time to work through the economy and will clearly affect developments in 1971, both in the areas of internal stability and the balance of payments. The situation could again be exacerbated by unpredictable

U.S.-ISRAEL OPERATION—*Electrochemical Industries Ltd., Haifa Bay, produces aromatic chemicals, citrus oil concentrates, flavoring essences, laboratory chemicals, caustic soda, and PVC resins. Americans have substantial ownership interest.*

changes in Government expenditures as a result of developments in the politico/military situation. Economic policymakers therefore will have to remain alert to changing circumstances and will have to exert a strong and steady influence if the positive trends are to continue and the economy is to be established on a new and steady long-range growth pattern as desired.

U.S. exporters have proved quite adept at exploiting market opportunities in Israel. The United States has maintained a relatively steady share of just under one-quarter of the total market for imported commodities. Following a very rapid rise in 1969, U.S. exports rose by another 4 percent in 1970 to $325 million, based on Israeli data. Exports in 1971 should continue to grow and are likely to exceed the growth recorded in 1970. It should be noted that the foregoing estimates of U.S. exports exclude the considerable shipments of special category items (mostly military) which are regarded by Israel as imports of services.

The official Israeli forecast for 1971 estimates total imports of goods at $1.7 billion, an increase of over one-fifth over 1970. Raw material purchases, other than fuel and diamonds, are expected to rise by 12 percent to $800 million; investment goods, other than ships and planes, by 11 percent to $325 million; and consumer goods, by 10 percent to $150 million.

Specific product categories of interest to U.S. suppliers include: chemicals and plastics, especially chemical processing equipment; metal and metal products; machinery, especially for metalworking; transport equipment; electrical, electronics and optical equipment and equipment for tourist services.

Factors affecting U.S.

Access to the Israeli market for U.S.-manufactured and semi-manufactured products will be affected by a number of factors. Israel's difficult balance of payments situation has necessitated the imposition of a 20 percent surcharge on all but fuel and staple foodstuffs. Developments in 1971 will determine whether further measures may yet have to be taken. On the other hand, there are forces operating in the direction of easing part of the impact of the surcharge.

Specific tariff reductions have been implemented under the Kennedy Round and the so-called general liberalization program. This program is designed to bring about gradually by 1975 both lower and more uniform tariff rates. While not significantly affecting U.S. trade, the requirement that importers deposit funds with the central bank for six months on the value of certain imported products has now been cut from 50 percent to 40 percent.

U.S. exporters can also look to much stiffer competition from Europe. Israel in 1970 signed a preferential trade agreement with the Common Market. Step two of the five-year agreement, implemented on Jan. 1, gives the Common Market countries a 10-15 percent preference on a host of specific industrial products in the Israeli market. The impact of this agreement will be greater, of course, if the Common Market is expanded. By and large, the preferential agreement will intensify competition principally for those American products where price, delivery and quality factors play a minor role in sales.

Israel actively continues to seek foreign investment to expand its capital imports in the short-run and its export potential in the long-run. The Government continues its general policy of encouraging investment under the Law for the Encouragement of Capital Investment, which has been extended for another five years.

With respect to sectors, encouragement will be given particularly to investment in enterprises with good long-run profit potential, including metals, chemicals, electronics and fashion apparel sectors and science-based industries in general.

U.S. Foreign Service Posts Report Economic Trends In Seven Nations

Following are brief indicators taken from Foreign Economic Trends recently received by the Department of Commerce from U.S. Foreign Service posts in seven countries. Over 150 such reports for 117 foreign markets, ranging from 4 to 12 pages each, are received yearly.

Annual subscriptions to the Foreign Economic Trends series may be obtained for $15 from any Commerce Field Office or Supt. of Documents, Government Printing Office, Washington, D.C. 20402.

The **Ivory Coast** enters its second decade of independence with an enviable record of economic growth and diversification. In 1971, per capita GDP should surpass $300, nearly a quarter of which represents the contribution of industry. Growth is paced by ambitious projects for regional development and for maximizing the export value of agricultural raw materials. The climate is favorable for expansion of U.S. sales and investment. The Government is committed to construct an "African Riviera," hoping it and other new facilities will multiply the country's increasing role in international tourism. Iron and petroleum have not yet been proved to exist in economic quantities, but the exploitation of one or both could add significant new dimensions to the economy.

While the **Central African Republic** has made gains in some economic sectors, there are many problems that must be dealt with before the economy can begin to move forward. The only bright spots are the modest increases in agricultural production, with cotton, timber and coffee showing the most important gains. In 1971 the Government reaffirmed its commitment to development in the agricultural sector by announcing the preparation of a new five-year plan which, in addition to calling for drastic increases in output of the country's principal crops, also proposes to bring new acreage under cultivation. U.S. exporters of insecticides and fertilizers could profit from a sound promotional campaign to educate CAR farmers on the uses of such U.S. products that would complement the government's program to increase yields of agricultural products. The markets for these products will undoubtedly continue to expand, and a U.S. foothold now would insure future sales opportunities.

Peru's new industrial and foreign exchange laws and regulations, and the Andean Pact foreign investment code have clarified the rules of the game somewhat, but it remains to be seen if they are considered encouraging by foreign or domestic private investors. It is not yet clear that private investment will generate significant thrust for the economy in 1971. However, a moderately expansive budget, possibly some additional growth in domestic liquidity and ambitious public sector investment programs point to some growth in demand in coming months.

The growing Peruvian market will provide opportunities for foreign exporters of essential products not produced in sufficient quantities in Peru or the Andean Common Market, and the wide-ranging investment plans of the public sector over the next two-to-five years should produce growing markets for U.S. capital and other goods and for patent, technical, service and other contracts.

Fiji hopes to attract foreign investors to develop its industrial potential, particularly in the light industry sector. The Government is offering tariff concessions on imported plant machinery and equipment and imported raw materials, plus income tax concessions. However, while encouraging industrial investment on the one hand, government policy is equally aimed at developing only those manufacturing and processing activities whose limited complexity allows them to operate on a modest economy of scale while having at the same time at least a reasonable export potential, particularly within the Pacific Basin, in addition to enhancing or exploiting available domestic resources. In short the Government can be expected to approve investment programs more or less on a case-by-case basis with an eye to efficient exploitation of currently available as well as potential markets, rather than seeking to achieve industrialization or simple surplantation of imports for their own sake. Fiji has made a smooth economic transition from its colonial status since achieving independence last October.

Trinidad and Tobago's low rate of economic growth during the past year is attributed to sharply declining petroleum production, social unrest, and, in agriculture, to adverse weather conditions. While this slowdown is expected to continue at least through this year, the long-term economic outlook is much more favorable. Prospects for greatly expanded production of crude petroleum and natural gas are good, as are prospects for the establishment of petrochemical and other heavy industries based on inexpensive power from these gas reserves. Growing oil production will have favorable effects on the balance of payments and on revenues. The Government will be in a better position to take action against its most serious problem—chronic high unemployment — through construction activity and expanded public works. Tourism should make a

much larger contribution to foreign exchange and employment. Local industry is expected to continue growing to serve local and CARIFTA markets.

The **Irish** economy slipped into the doldrums in 1970 and is still fighting to get out. Crippled by major industrial disputes, growth in the economy fell to roughly 2 percent. Whether labor unrest has been the chief deterrent to economic growth, however, remains to be determined.

Wage rates in Ireland have risen faster since 1963 than in any of the countries that comprise her leading markets. The disparity between these rapidly rising wages and real productivity has created a serious cost-push inflation that is eroding the relative competitiveness of Irish goods in world markets. Looking ahead through 1971, prospects are for continued sluggishness, with much depending upon what happens to unit labor costs in Ireland's principal markets.

The **Saudi Arabian** market in 1971 should amount to at least a record billion dollars in imported goods and services. The Feb. 14 oil agreement will mean a steep growth in oil income, and pave the way for at least a 10 percent growth rate in 1971. There are excellent opportunities for U.S. firms to increase their already substantial sale of consumer and capital goods. As the government's cash resources continue to improve and major new project spending is resumed, there will also be additional demands for services in the management, operations and maintenance, technical training, and consulting engineering fields where U.S. companies have effectively competed for and won contracts in the past.

While the Government is likely to move selectively at first in allocating its increased revenues, the local business community is already basing its planning on increased development outlays.

World Trade Actions

French Pass Modernization Plan; Romania, Spain Court Investors

France: A basic objective of the Sixth Economic Plan covering the period 1971-75 will be the restructuring, enlargement and modernization of French industry. Attention will focus on a number of priority industries, including the mechanical industry, which embraces manufacturers of such diverse products as nonelectrical industrial machinery and equipment, metal furniture, dental and surgical equipment and instruments, office machines, farm machinery (including tractors), and laboratory equipment.

As a blueprint for its development, the mechanical industry has formulated—and the French Government has endorsed—Plan Mecanique, which will be incorporated into the Sixth Economic Plan. In order to achieve a 9-10 percent real annual growth rate in output, the industry must increase its investments by 12 percent per year from $440 million in 1970 to $780 million in 1975. The French Government intends to ease industry's access to long-term capital, particularly from government credit institutions.

The government is also cooperating in information and training programs designed to attract additional workers to the industry (some 210,000 new jobs are expected in the next ten years) and provide them with the necessary skills. In addition, the government will work with the industry to expand its export sales and will augment its assistance to French manufacturers participating in international trade fairs. Target growth for exports is 12 percent annually over the next ten years. Plan Mecanique also provides for channeling more research and development funds into mechanical industries.

Production in the machine tool sector, a key branch of the mechanical industry, is expected to increase by 10 percent per year. This sector will receive additional governmental support, including a program to train personnel in small and medium-size firms in the use of special and advanced machine tools (such as numerical control equipment), and a new lease-sale formula to enable small firms to afford such equipment. Annual production increases for heavy industrial machinery and precision instruments have been targeted at 10 and 8 percent, respectively.

While, in the long run, this concentrated effort at expansion and modernization presages increased competition for U.S. goods, in the nearer future it offers good sales opportunities for American exporters of machinery components and instrumentation. French businessmen look to the United States for advanced and sophisticated machinery and equipment.

Interested American firms may wish to consider participating in the biennial French Machine Tool and Mechanical Equipment Exhibition scheduled for next April in Paris. The 1970 show featured 566 exhibitors (over half of them representing non-French firms) and drew some 100,000 visitors.

Japan: On April 1 Japan put into effect the fifth and final stage of its Kennedy Round tariff reductions which were previously scheduled to become effective on Jan. 1, 1972. Final reductions were made on some 1,900 items.

In addition to advancing by nine months the date of its reductions, Japan reduced duties on the following items: Passenger cars, trucks and buses, now 10 percent; internal combustion piston engines for mo-

tor vehicles, 15 percent; color film, 23 and 26 percent until March 31, 1973, after which duties will be further reduced to 20 percent; electric refrigerators and electrothermic domestic appliances, 7.5 percent; and radios, television receivers, record players, and coin-operated juke boxes, 7.5 percent.

Legislation was also enacted to permit Japan to grant generalized tariff preferences for specified products imported from developing nations. This preferential tariff system will apply to 892 items, 59 of which are agricultural and 833 industrial products. Date of implementation of these tariff preferences has not been announced.

On April 1 Japan also raised import duties on several items, including pork (variable levy), grapefruit (seasonal duty), soda ash, patent leather, and parts for leather shoes.

Additional information on tariff rates for imports into Japan may be obtained from the Far East Division, BIC-892, U.S. Department of Commerce, Washington, D.C. 20230.

Japan: A new Government ordinance requires that as of April 1 all electrical apparatus operated in potentially explosive gas atmospheres must meet standards of construction formerly recommended but not required by the Research Institute of Industrial Safety of the Ministry of Labor. These standards, essentially the same as those contained in the Ministry of Labor publication, *"Recommended Practice for Electrical Equipment for Use in Explosive Gas Atmospheres for General Industry—1965,"* have existed in rough form since 1960 and are fairly well known to the Japanese electrical industry and to importers. The purpose of the standards is to protect workers from the danger of gas explosions caused by electrical sparks.

The new ordinance has broad application, covering the entire range of electrical machinery and electronic products. Of particular interest is the field of analytical and testing instruments, where the United States supplies a large part of the equipment in use in Japan. The Ministry of Labor has indicated that its inspectors will be "flexible" in their enforcement of the new ordinance and that safety certificates from U.S. Government agencies (e.g., Bureau of Mines) or private independent testing laboratories (e.g., Underwriters' Laboratories) would be acceptable to them. If this is the case, there should be no significant barrier to U.S. exports provided manufacturers are prepared to supply the required safety certificates.

For further information contact the Far East Division, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230.

Norway: The Phillips Petroleum-led group of oil companies operating in the Norwegian sector of the North Sea expected to start commercial production early in May. The Ekofisk oil field, located about 185 miles southwest of Stavanger, Norway, may produce up to 300,000 barrels a day by 1973 or 1974. In May, one of two 40,000-ton tankers is expected to carry the first shipment of Ekofisk oil to the Shell Refinery at Sola, near Stavanger.

Romania: On Mar. 17 a law was passed enabling Romanian economic organizations to form joint-ventures with foreign firms in the fields of industrial and agricultural production, construction, transportation, trade, and technical-scientific research and services. The conditions of the joint venture in terms of setting up the assets and distributing profits are to be specified in each joint-venture contract.

The Romanian law states that its domestic contracting party must retain at least 51 percent of the joint-venture. The Romanian State guarantees repatriation of capital and profits, as well as any other rights to which the foreign partner is entitled. Under this new law foreign firms can establish permanent representatives in Romania.

Spain: To stimulate new private investment opportunities, the Spanish Government recently invited applications for industrial investment in Government-promoted industrial development zones located at Burgos, Huelva, Corunna, Vigo, Granada, Cordova and Oviedo. Incentives to be offered to applicants approved by the Spanish Government include a cash grant equal to 10 percent of the projected investment, up to a 95 percent rebate on various local taxes and on the customs duty on imported equipment not produced in Spain, and freedom of amortization during the first five years. For a company to be considered eligible for these incentives the total investment, including cash grants and credits, must amount to at least 40 million pesetas ($571,000), unless the investor can create a minimum of 100 new jobs. Applications must be presented before June 30.

Additional information is available from the European Division, BIC-888, U.S. Department of Commerce, Washington, D.C. 20230.

Spain: The Ministry of Agriculture has published an order, effective Mar. 30, establishing certain prohibitions in the use for agricultural purposes of insecticides containing DDT.

Some key features of the order include: DDT is prohibited in practically all agricultural products; the DDT content in phytosanitary products used in agriculture, when permitted, may not exceed 50 percent; labels and promotional material of DDT-containing goods now on the market must be in compliance with the order within six months; products containing DDT will be prohibited in campaigns carried out or subsidized by the Ministry of Agriculture; and the detection of vegetable wastes will be made in accordance with the American AOAC standards.

New Institutions Proposed As AID Successor Agencies

This is another in a series of periodic reports on developments in the international investment and finance fields, and actions affecting international business operations, as noted by the Bureau of International Commerce's Office of International Investment.

President Nixon has transmitted two bills to Congress instead of amending the Foreign Assistance Act, which has governed American aid programs since 1961. Two aspects of U.S. foreign aid which had been combined in previous acts, military assistance and development assistance, are now separated in the two new proposals, sent up on April 21. The International Security Assistance Act will combine the former military assistance, supporting assistance, and military credit sales programs under the policy direction of the Department of State. The International Development and Humanitarian Assistance Act will provide authority for capital and technical assistance to be administered by new institutions. Humanitarian assistance would be coordinated under a new Assistant Secretary of State.

The President has proposed that economic assistance previously administered by the Agency for International Development be managed by two new institutions with private citizens on their governing boards working with the private sector to the maximum extent possible. The new International Development Corporation and the International Development Institute, together with the previously established Overseas Private Investment Corporation (see Feb. 22 issue, page 34) and the Inter-American Social Development Institute (now to be called the Inter-American Foundation) would replace the Agency for International Development, which was established in 1961. Thus all aspects of international development assistance will be managed along more businesslike lines with greater involvement of American private enterprise.

The International Development Corporation (IDC) would administer the U.S. bilateral lending programs. Its Board of Directors, which is to include private citizens as well as government officials, should have greater flexibility in program management, including lending directly to the private sector in developing countries and determining appropriate lending terms and criteria.

It will rely less on a close government-to-government relationship through the aid missions to foreign countries and more on the general economic analysis provided by international development institutions such as the World Bank. It would not attempt to determine country lending levels in advance, but could respond to initiatives from developing countries. Its loans would meet sound business standards as well as developmental criteria.

The International Development Institute (IDI) would administer U.S. bilateral technical assistance, bringing U.S. scientific, technological and managerial know-how to bear on problems of development. Its Board of Trustees would include outstanding citizens from the private sector, and it would carry out its projects largely through the private sector.

It would apply U.S. research in the physical and social sciences to development problems; build institutions, particularly in the agricultural and educational fields, in developing countries; train manpower; and finance advisors to developing countries. Like the IDC, it would respond to developing country requests and seek to assure that the foreign country would continue the activity in the future so that it would have a lasting impact.

To insure continuity and stability of operations, the President is requesting a three-year authorization for both new institutions. Funds requested for the three-year period are $1.5 billion for IDC and $1,275 million for IDI. IDC would also have authority to borrow from the U.S. Treasury or in the private capital market up to $1 billion during the initial three-year period.

Senate OKs Exim bill

S.581, the Export-Import Bank bill, won Senate approval on April 5. If enacted in its present form, the bill would remove Executive Branch budgetary constraints on Eximbank programs and raise the statutory ceilings on Eximbank loans, guarantees, and insurance that may be outstanding. These provisions would substantially increase Eximbank's capacity to provide financial assistance to U.S. exporters. In addition, S.581 would permit Eximbank to finance trade with Eastern Europe, forbidden under present circumstances by the so-called "Fino Amendment," and would extend the life of the Bank to 1976.

Although the provision to remove budgetary constraints was the subject of some debate, the Senate eventually passed the bill by a 67-1 vote. It is now being scheduled for hearings before the House Committee on Banking, Housing, and Urban Affairs.

DISC gets Treasury backing

Testifying before the Senate Finance Committee in support of extending the Interest Equalization Tax (IET), Under Secretary of the Treasury for Monetary Affairs Paul A. Volcker also called for sup-

port of the Domestic International Sales Corporation (DISC) tax deferral proposal. The DISC, which would amend the Internal Revenue Code to permit U.S. firms to establish special export corporations entitled to a deferral of tax on export income, was rejected by the Committee during the 91st Congress last year.

Volcker pointed out that while the IET was necessary as a short-term restraint on capital outflow to aid the troubled U.S. balance of payments position, enactment of DISC was needed to assist the long run improvement of the U.S. payments performance by guaranteeing that U.S. tax treatment would not discriminate against income earned from exports, compared with that earned from direct investment abroad, as is presently the case. DISC is currently pending before the House Ways and Means Committee as Title IV of the Trade Act of 1971 (H.R. 20).

IET extended

On April 1, the "Interest Equalization Tax Extension Act of 1971" (P. L. 92-9) became effective, extending that tax for another two years, to March 31, 1973. The tax is designed to increase the cost to foreigners of raising capital in the United States. The legislation continues the tax rate equivalent to ¾ of one percentage point per year interest with discretionary authority available to the President to vary the tax rate from zero to an interest equivalent of up to 1½ percent.

The tax applies to transactions in which capital is obtained from U.S. sources either from the sale of debt obligations or from the sale of stock. A new provision authorizes the President to extend the tax to bank loans to foreigners and other foreign debt acquisitions of less than one year maturity if he determines that this is desirable to meet economic objectives. The new law continues the previous provisions for relief from the tax and provides for several modifications.

PEFCO Stock Sale Meets Opening Quota

The Private Export Funding Corporation (PEFCO) has raised $12.7 million from its initial sale of stock. This is more than the $10 million minimum necessary for it to begin operations. The funds were raised from subscriptions by 46 major U.S. banks.

PEFCO was incorporated on April 9, 1970 on the initiative of the Bankers' Association for Foreign Trade (BAFT) and with the support of the Export-Import Bank of the United States. Its primary purpose is to tap sources of private capital to assist Eximbank in financing U.S. exports.

The offering consisted of 15,000 shares of common stock. It was initially made available only to members of the BAFT Committee on PEFCO, but shares are now being publicly offered to "qualified investors"—banks, non-bank financial institutions, and corporations involved in exporting. In the event of an oversubscription, adjustments will be made in the holdings of the initial subscribers.

In addition to the proceeds from its sale of stock, PEFCO also has access to a $50 million revolving line of credit which has been extended by Eximbank. (For a report on signing of a guarantee and credit agreement between PEFCO and Eximbank, see April 5 issue.)

Country Of Origin Name Not Needed In Import Ads

The Federal Trade Commission recently issued an advisory opinion concerning the disclosure of foreign origin in newspaper advertisements of imported goods, in response to a request from a West Coast department store. The Commission opinion, released to the public on March 23, found that it is not necessary to note the country of origin in such advertisements and, further, that the word "imported" may be used in ads to promote the sale of imported goods.

This finding was based on the assumption that the imported articles are actually labeled to indicate the country or origin, and that the type of ad in question does not involve soliciting for mail-order or catalog purchases. The Commission pointed out that advertising of imported fur or fur products, which are covered by special requirements under the Fur Products Labeling Act, must identify the country of origin. FTC Advisory Opinions carry the full authority of the Commission, and are provided as a service to businessmen seeking advice as to the propriety of certain trade practices.

New Peru Regulations Cover Recording Of License Links

The Peruvian Government has issued new regulations establishing compulsory requirements for the recording of license contracts based on industrial property ownership rights. The Jan. 26 regulations cover such rights as patents, industrial designs, trade marks, and trade names, and are applicable to all industrial enterprises operating in Peru. They do not affect industrial property ownership previously acquired, however.

Parties affected by the new regulations were given until April 22 to file these contracts with the Office and Register of Industrial Property. Contract rights would not be protected by Peruvian law between the deadline and the time when the license contract was recorded and approved by the authorities. Applicants filing after the deadline may be fined if an extension of the original filing period has been granted and the new deadline has not been met. The amount of the fine could be equal to one-twelfth of the amount of last year's royalties or incentives earned from the contract, or alternatively the Peruvian currency equivalent of $25.80 to $2,580.

The regulations implement the General Industrial Law.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows, incorporating the familiar Licensing and Investment Opportunities and Foreign Trade Opportunities, presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies, appoint agents, major construction and expansion projects, and U.S. visits by foreign buyers.

U.S. Promotions Overseas

UNITED KINGDOM. Separation Systems Equipment for Industry. Concern over pollution has added an important impetus to the U.K.'s growing need for more advanced separation systems to handle in-factory processes. Indicative of the need, imports of filter and centrifuge equipment was 33 percent higher in 1968 than in 1965. The U.S. had 36 percent of this $15 million 1968 import market. There is an increasing need among filter users for "packaged" filtration with instrumentation that provides a complete system for use with an industrial process. Call Gus Duda, 202-967-4462. London Trade Center. June 21-25.

GERMANY. Metallurgical Equipment & Instrumentation. Estimates place a $52 million value on the German market for metallurgical equipment and instrumentation. German industry's increasing emphasis on in-plant automation for production and testing has precipitated a great deal of demand for the latest, most modern process control and measuring equipment. In addition, powder metallurgy is new in Germany and is causing much interest. The German market for metallurgical equipment and instrumentation is reported excellent for U.S. firms. Contact William Gaines, 202-967-4073. Frankfurt Trade Center. June 21-25.

THAILAND. Security Systems and Equipment. The Regional Trade Development Center in Bangkok is hosting a display of American security systems and equipment including: electronic burglar alarms, fire alarm systems, closed circuit television, fire fighting equipment, safes and vaults, and building and industrial security equipment. For information call Thomas R. Padgett, 202-967-4727. Bangkok Regional Trade Development Center. June 28-July 2.

UNITED KINGDOM. Printing & Bookbinding Machinery. The London International Printing Machinery Exhibition, IPEX, is one of the largest in the world for the printing industry. The last London IPEX in 1963 drew over 250,000 visitors. U.K. imports of this equipment have been rising steadily, with U.S. exports holding over 20 percent of the import market. Call Joe McNulty, 202-967-4653. U.S. Commercial Exhibition, London International Printing Machinery Exhibition. July 13-24.

ITALY. Measurement, Test Equipment for the Electronics Industry. Italy's electronics industry is seeking the latest U.S. testing and measuring equipment. Italy is Europe's largest producer of electric household appliances, and its electronics industry is expanding rapidly. Market research confirmed that U.S. suppliers have opportunities to sell a wide range of measurement and test equipment in this growing market. The exhibition will coincide with the International Electronic Components and Measuring Instruments Exhibition. Call Robert Wallace, 202-967-4508. Milan Trade Center. Sept. 6-10.

UNITED KINGDOM. Electromechanical Precision Parts. U.K. imports of passive electronic components is forecast increasing at a yearly rate of 12 percent through 1972, by which time imports are expected to supply 20 percent of the demand. Overall demands for electronic componentry are estimated reaching $600 million by 1972 with approximately $96 million being supplied by imports, with the U.S. as the main source. Many high performance precision parts are in continuing demand, with no local sources available. Good sales prospects are also reported for new product developments offering advanced designs. Call Lee Swift, 202-967-4461. London Trade Center. Sept. 13-17.

GERMANY. Plastic & Plastics Machinery. German per capita consumption of plastics—over 100 pounds annually—is the world's highest. Future growth in the use of plastics is predicted on the assumption that applications will expand rapidly into many new fields, especially, for building-construction and automobile production. Expanded use of plastics is also anticipated for interior decorating and home furnishings. Call George A. Kemp, 202-967-3088. U.S. Commercial Exhibition, 6th International Plastics Fair, KUNSTSTOFFE '71. Duesseldorf. Sept. 16-23.

SCANDINAVIA. Educational & Industrial Training Equipment. Scandinavian countries are intensifying their use of modern, advanced educational and industrial training aids and equipment applicable to public and private educational institutions, universities, adult education programs, company and labor union manpower training programs, business and management colleges, government agencies, libraries and television and film enterprises. Officials of educational institutions, industry and governmental organizations have indicated the time is ripe for an exhibition featuring the latest U.S. technology in this field including programmed and computer assisted instruction, electronic responders, closed circuit TV, video tape recording systems, microfilm reading and storage systems, language laboratories, teaching machines, projection equipment and software. Call John R. Crown, 202-967-4421. Stockholm Trade Center. Sept. 20-25.

FRANCE. Industrial & Commercial Security Equipment. The French businessman is becoming increasingly aware of his need for effective protection against losses incurred by fire and theft. Many French industrial plants, banks and commercial establishments have inadequate safeguards, or none at all. An important, expanding marketing opportunity exists for American manufacturers of alarm systems, fire detection and extinguishing equipment, parking lot security equipment, personnel identification systems, security cameras, electronic locking systems, pilferage prevention devices, check protection systems, document destruction equipment, and ancillary products. This event is being scheduled concurrently and promoted in cooperation with EUROPROTECTION, a major European exhibition of industrial security and safety equipment. Call Bruce Strong, 202-967-2835. Paris Trade Center. Sept. 27-Oct. 1.

JAPAN. Electronics Production Equipment, Components & Test, Measuring Instruments. Japan's production of all electronics products is expected to top $9 billion during 1970, of which the production of industrial electronic products is estimated at $2.5 billion, a 25 percent increase over 1969. Imports from the U.S. of electronics products in 1969 were valued at $274.8 million, a 40 percent rise over 1968. Call William Dawson, 202-967-5682. U.S. Commercial Exhibition, Japan Electronics Show. Osaka. Oct. 1-7.

GERMANY. Industrial Assembly Equipment. The field of assembly fastenings and techniques in Germany is still in the early stages of development. There are numerous ways to cut costs that have not yet been exploited. German manufacturers continue to look to the U.S. for new techniques in the field of special fasteners. American licensing agreements as

well as agency representation are readily accepted. An estimate of the demand in Germany for industrial assembly equipment is between 10-15 percent of the demand in the United States. Contact Don Schmadel, 202-967-4601. Frankfurt Trade Center. Oct. 11-15.

SCANDINAVIA. Design Engineering Components for Machinery & Vehicle Equipment Manufacturers. U.S. exports of controls, components and parts to Scandinavian OEMs (original equipment manufacturers) totaled over $70 million in 1969. Scandinavian OEMs of machinery and vehicles rely heavily on outside suppliers for controls and components, and they import over half of their requirements for this equipment. Sweden imported over $472 million of industrial controls and parts, hydraulic and pneumatic units and components, pumps, valves and filters, gears, clutches, couplings, bearings, transmissions and their parts, packings, motors and parts, engines and parts for engines, and other electrical, electromechanical, and mechanical parts for various types of OEM equipment. Call E. C. Walls, 202-967-4256. Stockholm Trade Center. Oct. 11-16.

GERMANY. Industrial Automation & Instrumentation Equipment. Europe's demands for measuring and control equipment are valued at approximately $4.5 billion. Growing consumer and industrial demands have increasingly strained European production capabilities and this demand plus new technological specifications have combined to produce a new high demand for automatic process control equipment. Germany, the largest single country market in Europe, is estimated to have a market for measuring and control equipment valued at $1 billion. This market is growing at the rate of 15-20 percent annually. Call John F. Whiteley, 202-967-2425. U.S. Commercial Exhibition, INTERKAMA '71. Duesseldorf. Oct. 14-20.

FRANCE. Refrigeration & Air Conditioning Equipment, Components. France is a growing market for U.S. air conditioning and refrigeration equipment as the rising standard of living spurs the modernization of food processing, storage, transportation, and merchandising methods, and the widening acceptance of residential, commercial and industrial air conditioning techniques. New market research indicates good sales prospects for packaged (unitary) air conditioning systems including split, roof-mounted, central, window and wall air conditioners. Call John Wolf, 202-967-4974. Paris Trade Center. Oct. 18-22.

KOREA. Industrial Machinery. Korea is continuing to forge solid economic gains; its growth rate is growing at 10% annually. Imports are also reaching new levels, with the U.S. supplying more than $630 million in 1970. Korea is seeking to correct a large trade imbalance by modernizing its export industries, through the use of new machinery and equipment, much of which must be imported. Call Robert Levine, 202-967-4705. U.S. Solo Exhibition, Second U.S. Industrial Machinery Exhibition. Seoul. Oct 18-23.

JAPAN. Avionics & Ground Support Equipment. The aircraft industry in Japan is experiencing a dynamic revival. Imports of aircraft engines, navigation and ground electronics navigation aids, and aircraft and ground support equipment are very strong, supplying more than half of Japan's demand. The technological level of Japanese-produced engines and certain instrumentation is still below that of U.S. and some foreign producers, and therefore, import demand is expected to remain high. Contact Bob Miller, 202-967-2991. Tokyo Trade Center. Oct. 25-30.

ITALY. Business Automation. Italian businessmen are modernizing their methods and procedures and looking to the U.S. to fill growing needs for advanced business equipment. Market research has identified insurance, banking and service sectors, as well as manufacturing industries and government agencies, as prospective purchasers. Items sought include EDP, reprographic, microfilm and other business efficiency equipment. This exhibition will be held in conjunction with the Eighth International Exhibition of Office Machines and Equipment (SMAU). Call Herb H. Lindstrom, 202-967-3944. Milan Trade Center. Oct. 26-31.

GERMANY. Electro-Optics/Laser Equipment. Germany, the largest European market for electro-optics/laser equipment, is entering a period of sustained market growth. The 1971-72 period should support an annual electro-optic/laser equipment sales growth of 50 percent. Demand is high for lasers, especially systems with industrial and commercial applications. Call George Kemp, 202-967-3088. Frankfurt Trade Center. Nov. 8-12.

BRAZIL. Printing & Graphic Arts Equipment, Business Equipment & Computers, Machine Tools, Construction Machinery. Brazil's printing and publishing industry imported $31.9 million worth of supplies last year with the U.S. providing a 35 percent market share. U.S. shipments of business equipment and computers nearly doubled between 1969 and 1970 to $35.3 million. Approximately $22.8 million of this amount was spent on EDP systems. Construction projects have expanded the market for U.S. made machinery to $93 million a year. And the market for machine tools which is valued at $36.5 million annually, received $7.4 million in goods during 1969 from the U.S. Contact Vincent Doran, 202-967-3838. U.S. Solo Exhibition. Sao Paulo. Nov. 16-23.

ITALY. Advanced Fluid Power Equipment Exhibition/Symposium. Italy's continued drive toward automating its industrial processes and manufactured equipment has created a market for fluid power equipment that is growing at a rate of 15-20 percent annually. Total Italian consumption of fluid power equipment for 1971 is estimated at $63 million. In 1970, Italy's imports rose nearly 21 percent to almost $15 billion. Market research has confirmed good sales opportunities for U.S. suppliers of motors, valves, pumps, servosystems, fluidic devices, and other fluid power equipment. For further information about the Italian market for fluid power equipment and about the U.S. exhibition/symposium, call 202-967-3968. Milan Trade Center. Nov. 23-27.

GERMANY. EDP Equipment. The Western European market for EDP equipment in 1970 was estimated at $2 billion and the forecast for 1974 is $3.6 billion. Germany, the host country for this trade fair, is the largest single country market in Europe. In 1970, the German EDP market reportedly reached $568 million and is projected to reach $1.15 billion by 1974. The U.S. supplies about 50% of German EDP equipment imports. Contact Andre Williams, 202-967-2425. U.S. Commercial Exhibition, SYSTEMS '71, Munich. Nov. 30-Dec. 3.

GERMANY. Equipment for Vacuum & Cryogenic Research. American sales of vacuum and cryogenic equipment in Germany's market are largest for the more advanced and sophisticated lines. American industry has been a leader in the application of advanced high and ultra-high vacuum technology in research and in specialized cryogenic lines. Special sales efforts are required to maintain or increase the U.S. share of this market. Call Don C. Schmadel, 202-967-4601. Frankfurt Trade Center. Dec. 6-10.

JAPAN. Air & Water Pollution Control. Japan is suffering with the problems of

Sales opportunities in seven U.S. commercial exhibitions, trade fairs and solo exhibitions and 17 shows at the eight U.S. Trade Centers are being offered to present and potential U.S. exporters between now and Dec. 6, 1971.

Each Trade Center exhibition is limited to one particular line of products and centers are located in London, Bangkok, Milan, Frankfurt, Stockholm, Sydney, Tokyo and Paris. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Commercial Exhibits Program, BIC-932, U.S. Department of Commerce, Washington, D.C. 20230.*

Trade missions are groups of U.S. businessmen organized to travel abroad promoting the export of U.S. goods and services made by their particular industry. **Write:** *Trade Missions Div., BIC-926, U.S. Department of Commerce, Washington, D.C. 20230.*

A product showroom where U.S. goods or literature can be displayed is also maintained at the American Embassy in Ethiopia. **Write:** *Edward W. M. Bryant, Commercial Attache, American Embassy, Crown Prince Asfaw Wossen St., Addis Ababa.*

TRACTORS ON PARADE—*Outside the U.S. Pavilion at the Chiang Mai Winter Fair in Thailand, tractors and heavy-duty equipment were demonstrated for many of the Fair's 900,000 visitors. In the booths of 28 exhibitors, the products of 38 U.S. companies were on view. First year sales projections are estimated at $272,000.*

pollution. Her great factory cities, Tokyo, Osaka-Kobe, Nagoya and Fukuoka, like their counterparts in the U.S. and Europe, are daily showered with tons of pollutants. Rivers are choked with industrial wastes. The Japanese Government, responding to a concerned public, has acted to put into force laws which will clean up Japan's air and water. Antipollution equipment produced in Japan is not being made in great enough quantity or variety to meet all demands. U.S. firms are invited to enter into a ready and large market for up-to-date antipollution control equipment where demands are predicted reaching $540 million by 1975. Call Robert Tysar, 202-967-4918. Tokyo Trade Center. Dec. 6-11.

Space Fully Booked

The following exhibitions and trade missions, in which all exhibit space has been reserved, are still open for visits by interested industry representatives. U.S. firms with sales representatives in these market areas could ask them to investigate the shows.

Production Equipment for the Electronics Industry, Frankfurt Trade Center, May 10-14; Automation Controls and Related Devices for Production, U.S. Commercial Exhibition, 4th Automatic Control Equipment Show, Tokyo, May 14-18; Nuclear Instrumentation & Equipment, London Trade Center, May 17-21; Materials for the Electronics Industry, Tokyo Trade Center, May 17-22; Agribusiness Equipment, U.S. Solo Exhibition, Caracas, May 17-23; Electronic Components & Test Instruments, U.S. Commercial Exhibition, International London Electronic Components Show, London, May 18-21; EDP Equipment Trade Mission, Argentina & Brazil, May 22-June 4; Aerospace Equipment, U.S. Commercial Exhibition, Paris Air Show, May 27-June 6; Industry Oriented Computers, Paris Trade Center, June 7-11.

Packaging Machinery, Materials & Containers, Stockholm Trade Center, June 7-12; Chromatography & Spectroscopy Equipment, Tokyo Trade Center, June 7-12; Advanced Medical Equipment, Milan Trade Center, June 8-12; Environmental Pollution Control Equipment, U.S. Commercial Exhibition, PROAQUA PROVITA, June 8-12; Machine Tools & Measuring Control Equipment, U.S. Commercial Exhibition, 40th Poznan International Fair, Poznan, Poland, June 13-22; Quality Control & Reliability Equipment, Sydney Trade Center, June 21-25; Computer Input/Output Devices, Tokyo Trade Center, July 29-31.

Mexico Boosts Investments For Electronic Calculators

A new program of tax incentives to benefit manufacturers of non-printing electronic calculating machines was announced by the Mexican Government. The program includes reductions on import duties of capital goods to start new production facilities.

Foreign firms face complications such as requirements to train Mexican personnel and capital participation.

Additional details, including a listing of Mexican firms now in the field and an unofficial translation of the Mexican Government's General Tax Exemption Declaration No. 288 concerning production of non-printing electronic calculating machines is available at no charge by requesting "Mexican Calculator Investment Information" from: Foreign Investment Services Div., OII, BIC-878, Dept. of Commerce, Washington, D.C. 20230.

Licensing In U.S.

2023—2026—SWITZERLAND — A cross-licensing opportunity is offered for **infants' milk product and other dairy and food preparations.** For manufacturing and distribution in Switzerland they wish novelty U.S. food products, bakery ingredients, flour mixes, ready mix foods, advanced infants and baby products plus new items in dairy, food, fat and oil products; excluding canned baby foods, conventional instant milks and meals, frozen foods and freeze dried products. **File 2022**

2599—ENGLAND—Firm wishes to license an American company to manufacture their patented design of **interlocking table surfaces** for banquet and restaurant purposes. It brings complete versatility to dining and meeting arrangements with one set of furniture. **File 2028**

3231—GERMANY—A fully-owned subsidiary of a U.S. company offers manufacturing licenses for **specially insulated flat glass and security glass. File 2023**

3272—ENGLAND—Firm offers a system of **precasting concrete** into crib type retaining walls and for precast single or multiple garages. The garages do not usually require foundations. **File 2029**

3433 — ENGLAND—Company manufacturing an **oil burning heater for prevention of frost damage to crops** is interested in having its heater manufactured under license in the U.S. It has been approved by the U.K. Ministry of Agriculture. The advantages of this heater over existing methods of frost protection is that it lights automatically at a predetermined temperature. **File 2024**

3449—FRANCE—Company is interested an agreement for the production of their specially designed **steel chalets.** The designer holds patents in France, Germany, Italy, U.S. Advantages claimed are rapid construction without need for individual room foundation. Uneven or sloping sites may be used because of stabilizing devices incorporated into the prefabricated materials. **File 2025**

3551—ENGLAND—Inventor and producer of a patented machine **process to produce hermetically sealed, lined cartons** produced from a single block of laminated board is interested in making contact with packaging machinery manufacturers. A working model has been produced through funds obtained from royalties on previous patents by the same inventor. **File 2030**

3552—3662—3821 — SWITZERLAND — Firm manufacturing electronic controls would like to make arrangements with an American firm to manufacture **textile machinery controls, numerical controls, viscosity meters and thread detectors** for textile machinery manufactures. **File 1965-R**

3611—SWITZERLAND—Firm offers its newly developed **graphic data logging system.** The system consists mainly of precision tooth racks, optical encoders and incremental counters mounted either on a coordinatograph, a plotter, or a tooling machine. Data can be stored and transferred to tape or card punchers, a teletype terminal or a computer by use of an interface/serializer. **File 2031**

3622—**SWITZERLAND** — Manufacturer of **automatic moisture/humidity and temperature controls** wishes to form manufacturing arrangement with a company preferably experienced in environmental controls and electronics. Several European countries are already being served with their products. **File 1868-R**

3642 — **FRANCE**—Licensing arrangements sought for manufacture of **public and interstate highway lighting equipment.** The products would include high lighting fixtures and supports, lighting fittings, sport grounds, and large industrial areas floodlighting. **File 2026.**

3651 — **SWITZERLAND—Public-address control unit** developed for the Swiss Airlines is offered by Swiss company. **File 1967-R**

3674 — **SWITZERLAND**—Manufacturer of **electronic components** which includes among other products, fuses and accessories, signal lamps, transistor pads, valve sockets, printed circuits, accessories, etc., offers manufacturing rights. The firm presently exports to several countries and manufactures in Germany and Switzerland. **File 2027**

3821 — **SWITZERLAND**—Manufacturer is offering for U.S. manufacture an anti-aircraft aiming-error measuring unit. **File 1969-R**

Licensing, Investment Abroad

2033—**SPAIN**—Recently established firm offers participation in new business to be established in the province of Granada. Organized by six individuals, the firm has already received approval for governmental credit resources and incentives for the project entailing the establishment of a **food processing plant** located within the Granada Industrial Park. The firm initially plans to produce canned tomatoes and tomato concentrates but will expand to other canned vegetables. The majority of the production is slated for export. Conservas Granada, S.A., Calle Duquess 14, Granada. WTD. P-71184

2071—**HONDURAS**—Confectionery firm seeks patent, trademark or technical licensing agreements for manufacture in Honduras of **gelatine and/or marshmallows.** Firm presently has annual sales of over $500,000. It has expanded plant facilities located at Carretera a Leparterique Comayaguela, (D.C.) Honduras. Firm has import substitution incentives for local production of gelatines. Taufick Mourra, Industria Confitera Centroamericana, S.A., Apartado Postal 235, Tegucigalpa, D.C. WTD. P-71138

2256 — **PORTUGAL** — Large manufacturer of ladies' and children's underwear and sleepwear is interested in securing American licensing rights and technical assistance for the manufacture of high quality **ladies knit garments.** The Portuguese firm, established in 1907, has annual sales of $3.5 million. Firm has dyeing and finishing facilities, warp and circular knitting machines and testing laboratory. About 50% of output is sold in Portuguese overseas territories. Simoes & Ca. Lda., Avenida Gomes Jereira, 11, Lisbon. WTD. P-71181

2834 — **SWITZERLAND** — Pharmaceutical producer wants to expand operations. Seeks licenses to make **vaccination preparations, serums, veterinary pharmaceuticals, medicated feed additives and special flavorings.** Firm recently moved into new plant equipped with modern machinery. Employs 50; has subsidiaries in The Netherlands, Austria, Ireland. Dr. Schnorf, Dir., Veterinari AG, Grubenstr. 40, 9021 Zurich. WTD. P-71172

2834—**SWITZERLAND**—Company seeks license to produce **pharmaceuticals** for the care and treatment of nervous and sensory disorders and parasitic infections. Firm is a member of a large group that produces pharmaceuticals, toiletries and cosmetics. Plant equipped with modern machines; employs 50. Mr. Eichenberger; Mgr., Medinova AG. Eggbuhlstr. 14, 8052 Zurich. WTD. P-71177

2840—**BELGIUM**—Large **chemical manufacturer** seeks production agreements with U.S. firms. Offers manufacturing, laboratory, packaging and shipping facilities. Can produce to required specifications, adjust formulations to meet local requirements. Not prepared to undertake marketing function. Belgian company currently makes surface active agents, detergents and chemicals for the cosmetic and toiletry industries. Mr. M. Magis, Directeur, Expansion Internationale, Tensia, S.A., 400 Liege, Belgique, 1e Avenue des Tilleuls, 62. P-71180

3069 — **ARGENTINA** — Manufacturer seeks license to produce **freon gas hoses and high pressure hydraulic hoses** for use with tractors, construction machinery, hydraulic presses and service station equipment. Established in 1944, produces automotive hydraulic hoses, fittings and hose replacement parts. Flexigom, S.R.L., White 2075, Buenos Aires. P-71170

3443, 3531—**ENGLAND** — Manufacturer of underground and overhead **cable laying and suspension equipment, winches, trailers, pressure vessels, storage tanks and machined components** seeks licensing arrangement to produce these and complementary items in the U.K. Established in 1946, it employs 28. Mr. L. Scaife, Gen. Mgr., Industrial Developments (1946) Ltd., Factory 'C', Greatbridge Industrial Estate, Stockbridge Rd., Romsey, Hants., England. WTD. P-71163

3433, 3536, 3569 — **ENGLAND** — Firm seeks license to produce all types of **cranes and incineration, anti-pollution, packaging, mechanical and bulk handling equipment** for the chemical, machine tool, steel, and mining industries. Company manufactures cranes, packaging and bulk handling machines. Established in 1964 and employs 160. Peter Martin, Sales Executive, Ryton Engineering Co., Ltd., Stargate Works, Ryton, Co. Durham. WTD. P-71167

3444—**CANADA**—Manufacturer seeks license to produce **pollution control equipment and fabricated metal products.** Firm will also consider financial participation and offers royalty payments for patented technology. Company presently produces a wide range of metal products such as control panels, duct systems, consoles for electrical and control industries. Established in 1934 and employs 75. McGruer, Fortier, Meyers Ltd., P. O. Box 118, Station C, Montreal, Quebec. WTD. P-71179

3551—**ENGLAND** — Bottling machinery manufacturer seeks to make equipment complementary to present line under license. Interests include **bottle feeding, cleavers and labeling machinery; carton and packaging equipment.** Gerald B. Harley, Man. Dir., Gravfil Machines Ltd., Chapel Rd., London, S.E.24. WTD. P-71166

3551—**ENGLAND**—Manufacturing rights for **catering equipment and food preparation machinery.** Currently makes commercial catering equipment, gas burners, stainless steel sinks and sterilizers. Established 1903, employs about 120. H. Hall, Man. Dir., Hygienic Engineering Industries Ltd., St. Thomas's Rd., Huddersfield, Yorkshire, HD1 3LQ. WTD. P-71165

3522 — **ENGLAND** — Manufacturer of **poultry processing and incubator equipment** seeks licenses. Wants to make equipment suitable to present line. Employs 230, including 10 salesmen. R. J. Stephens, Man. Dir., Gordon Johnson-Stephens Ltd., Hempsted Lane, Gloucester, Glos., GL2 6HW. WTD. P-71164

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and also assistance on overseas investments are available from the Office of International Investment, U.S. Department of Commerce, BIC-878, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

For additional information on opportunities to manufacture foreign firm's products in the U.S., described under "Licensing In U.S.", write Commerce's Office of International Investment, BIC-874, or call 202-967-2248 referring to the File Number assigned each opportunity.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

3535, 3551, 3559 — SWITZERLAND — Producer of equipment for chemical industry seeks manufacturing rights and licenses to produce **dosing and mixing machinery and conveyor systems** for food and chemical industries. Sales in 1970 were at $4 million. Dr. Herman Gericke, Pres., Gericke & Co., Stationstr. 67, 8105 Regensdorf. P-71169

3545—SCOTLAND—Firm seeks license to produce **special purpose machines, precision parts, tools, gauges, jigs and fixtures.** G. H. Barclay, Man. Dir., Gordon H. Barclay (mfr.) Ltd., 11 Fairfield Place, East Kilbride. WTD. P-71168

3554 — GERMANY — Manufacturer and distributor of **envelope making machines** seeks license to produce models employing advanced technology in order to expand present production. Established in 1884, it employs 70. Ernst Pott Maschinenfabrik, 165, Hatzfelder Str., 56 Wuppertal-Barmen. WTD. P-71176

3554—GERMANY—Firm seeks license to produce **screens, save-alls and thickeners** for the paper industry. Company produces machinery and wire for paper industry. Established in 1869; employs 140. Chr. WANDEL KG—Metalltuch—und Maschinenfabrik, 22 Lederstrasse, D-7410 Reutlingen, Baden-Wuerttemberg. WTD. P-71185

3585 — IRAN — Air conditioner importer proposes joint venture to manufacture **air conditioners** 13,000 and 16,000 BTU. Estimated cost of new venture is $1 million. U.S. partner to have 40% equity in return for U.S. machinery, equipment, technical know-how, U.S. technicians and some financial participation. Mohammadpour Trading Co., P. O. Box 163, Khiaban Amir Kabir, Abadan. WTD. P-71178

3622, 3821 — SWITZERLAND — Electronic controls firm seeks license for **industrial controls and process instruments for machine tools and high precision machinery**. Alternatively, the firm is willing to represent in Switzerland U.S. manufacturers of these controls and instruments. As a distributor of electronic devices, the firm is also interested in importation of, and representation for advanced electronic components, switches, contacts and relays; high speed stepping motors for digital motions, and x/y positioning systems. Established in 1946, the firm employs 40. Mr. G. Manta, Mgr., Dumaco AG, Elfenaustr. 3, 2500 Bienne. WTD. P-71173

3624—INDIA—Entrepreneur seeks financial and technical assistance in venture to manufacture **graphite electrodes.** Projected plant to have capacity of 10,000 metric tons annually and will employ 185. Electrodes are for arc furnaces and anodes for electric cells of sizes 4" to 18". Mr. Pravinchandra V. Gandhi, NKM International House, 5th Fl., 178 Backbay Reclamation, Bombay 20. WTD. P-71183

3800, 3600—SWITZERLAND—Manufacturer of screw machine products and watch parts seeks to act as subcontractor for U.S. manufacturers of **precision instruments, controls and electronic products.** Components to be machined and assembled in Switzerland or Europe. Hans Egenbeger, Dir., Degen & Cie AG, 4435 Niederdorf. WTD. P-71174

3941 — KOREA — Manufacturer seeks joint venture to produce **metal toys** for exporting. Company produces metal containers. Established in 1957, it employs 148. International Metal Ind. Co. Ltd., 310, HaengDang-dong, SungDong-ku, Seoul. WTD. P-71182

5045—AFGHANISTAN — Exporter desires collaboration with firm on either a technical assistance contract or joint venture basis for purpose of establishing a new line of exports in **pistachios, walnuts, almonds and apricot kernels.** Interested in technical assistance for sorting, grading, packing, processing and arranging organizational structure. Dr. A. Hayatullah, Director General for Export Promotion, Ministry of Commerce, Kabul. P-71171

7392—AUSTRIA—Firm specializing in East-West commercial transactions offers assistance on commission basis in arranging **licensing and technical know-how agreements, establishing production facilities or setting up marketing and distribution channels** in Eastern European countries. Dr. Alois G. Picha, Man. Dir., A. C. Picha GmbH, Dr. Karl Lueger-Ring 10, A-1010 Vienna. WTD. P-71162

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should also be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230, or any Commerce Field Office.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Fruit, tree nut, vegetable farms

01224—FRANCE—Citrus fruits including lemons, oranges, grapefruits. S. Tedesco & Cie (importer), 170, C. Charlemagne, 69-Lyon 2e. WTD in prep.

Miscellaneous agriculture

01920—FRANCE—Grass-seeds of various kinds. Requests literature. Correspond in French. Louis Ricoux (Societe Nouvelle des Etablissements) (importer, dist.), 9 Place de l'Eglise, 87 Le Dorat. WTD 2/71.

01920—ITALY—Field, garden, and lawn seeds; particularly interested in watermelon seeds. Dott. A. Ingegnoli, S.p.a. (importer, dist., retailer), Via Merulana 48, 00186 Rome. WTD 3/71.

Metal mining

• **10200—ARGENTINA** — The Direccion General de Fabricaciones Militares has carried out a geological survey to be realized in the provinces of Mendoza, San Juan and Neuquen for exploration and exploitation, by private enterprise, of potential copper deposits. Tender No. H-4 No 137; bid deadline June 30. Contact: Direccion General de Fabricaciones Militares Direccion de Desarrollo Cabildo 65, Buenos Aires.

Anthracite

• **11100—COLOMBIA**—500 metric tons of anthracite coal for Bogota Water-Works & Sewer Co. Invitation No. 103-T-II-10. Bids must be submitted to Direccion

del Plan Maestro de Acueducto, Correra 40, No. 22B-60, Piso 3, Bogota, Colombia before 4 p.m. May 31. Specifications available from same address.

Canning, preserving foods

20371 — GERMANY — Frozen fruits: strawberries, other berries; frozen fruit juices; concentrates; frozen fruit pulp. Prices c.i.f. Hamburg. Direct purchase and agency on exclusive basis for W. Germany and possible Common Market. Handelsverker GmbH (importer, dist., agent), Woehlerstr. 3-5 6000 Frankfurt/Main. WTD 4/71.

Grain mill products

20411—GERMANY — Wheat flour, except flour mixes. Afina-Agrarfinanz GmbH, (importer, dist.), 16-20 Mercatorstrasse, 41 Duisburg. WTD 1/71.

20412—GERMANY — Wheat mill products, other than flour. Afina-Agrarfinanz GmbH, (importer, dist.), 16-20 Mercatorstrasse, 41 Duisburg. WTD 1/71.

20943—GREECE—Animal stearin inedible. C.i.f.-Piraeus price quotations. A. Dedoussi, E.E. (importer, dist., mfr.), 77 Menandrou St., Athens 107. WTD 5/70.

Knitting mills, products

22524 — TOGO — Hosiery; boys', men's, misses', children. Price quotations c.i.f. Lome. Correspondence requested in French. Mme. Frieda Guerard (importer retailer), 4, rue des Ecoles, B.P. 522, Lome. WTD in prep.

22530—JAMAICA—Banlon knit or equal; 20,000-30,000 yds. per annum. Quotations: c.i.f. Kingston. Knitmates Mfg. Ltd., L. E Azan, Dir. (dist., mfr.), 4 Beckford St., Kingston. 4/71.

Sawmills, planing mills

24211 — GERMANY — Lumber: Douglas fir, Carolina pine. Philipp Mohr GmbH (importer, mfr.), 6800 Mannheim, Fruchtbahnhofstrasse 8-12. WTD 4/71.

Converted paper, paperboard

26440—AUSTRIA—Wall paper of all kinds. Leo K. Chini (importer, dist./wholesale, retailer), Bruennlbadgasse 12, A-1090 Vienna. WTD in prep.

Periodicals: publishing, printing

27213 — GERMANY — Scientific periodicals. Gustav Brockmeyer, Buchhandlung (importer, dist., retailer), 463 Bochum, Viktoriastr. 1. WTD 3/71.

Books

27313—GERMANY — Scientific books. Prices c.i.f. European ports. Gustav Brockmeyer, Buchhandlung (importer, dist., retailer), 463 Bochum, Viktoriastr. 1. WTD 3/71.

27313 — GERMANY — Scientific books, magazines. Kunst & Wissen, Erich Bieber (importer, dist., mail order), Stuttgart S, Wilhelmstrasse 4. WTD 4/71.

27313—GERMANY—Technical, scientific, professional books, magazines. Albert Mueller Buchhandlung (importer, retailer), 7000 Stuttgart-Degerloch, Epplestrasse 19, P.O. Box 165. WTD 4/71.

Industrial chemicals

28180—CEYLON—Fifty tons citric acid (crystals or powder) for cordials, soft drinks. Kanagasabai & Co., K. (importer, dist.), Negris Bldg., York St., P.O. Box 614, Colombo 1. WTD in prep.

28181—AUSTRIA—First class fuel oil additives, reducing carbon deposit, protecting tank against corrosion, preventing formation of condensation products which could penetrate chimney walls. Direct purchase & agency. Johann Freiding (dist./wholesale, retailer), Lannach-Sajach 19, A-8502 Lannach-Sajach. WTD in prep.

28185 — AUSTRIA — Organic industrial chemicals other than dyes, pigments, toners. Wilhelm Neuber K.G. (importer, dist./wholesale, agent), Brueckengasse 1, P.O. Box 270, A-1061 Vienna. WTD in prep.

28199—AUSTRIA—Inorganic industrial chemicals, laboratory chemicals other than bleaching compounds, acids and aluminum, potassium and sodium compounds. Wilhelm Neuber K.G. (importer, dist./wholesale, agent), Brueckengasse 1, P.O. Box 270, A-1061 Vienna. WTD in prep.

Synthetic materials

28210 — GREECE — Plastics materials, synthetic resins, nonvulcanizable elastomers including silicone fluid solution, silicone resins, polyvinyl chloride. C.i.f.-Piraeus price quotations. A. Dedoussi, E.E. (importer, dist., mfr.), 77 Menandrou St., Athens 107. WTD 5/70.

Drugs

28311—AUSTRIA — Serums, bio-chemicals. Reazent Allgemeine Handelsges mbH (importer, dist./wholesale, agent), Martinstrasse 5, A-1180 Vienna. WTD 9/70.

28332—AUSTRIA—Diagnostic reagents, organic and inorganic chemicals used in medical laboratories. Reazent Allgemeine Handelsgesellschaft mbH (importer, dist./wholesale, agent), Martinstrasse 5, A-1180 Vienna. WTD 9/70.

28341—SPAIN—Pharmaceutical preparations affecting neoplasms, endocrine systems, etc. Plasten, S.A. (importer, dist.), Pinzon, 10, Valencia (1). WTD 1/71.

28342 — GREECE — Analgesics, other pharmaceutical preparations acting on central nervous system, sense organs. C.i.f.-Piraeus price quotations. A. Dedoussi, E.E. (importer, dist., mfr.), 77 Menandrou St., Athens 107. WTD 5/70.

28342—SPAIN—Pharmaceutical preparations acting on central nervous system, sense organs, for human use. Plasten, S.A. (importer, dist.), Pinzon, 10, Valencia (1). WTD 1/71.

28343—SPAIN—Pharmaceutical preparations acting on cardiovascular system, for human use. Plasten, S.A. (imp., dist.), Pinzon, 10, Valencia (1). WTD 1/71.

28345—SPAIN—Pharmaceutical preparations acting on digestive or genito-urinary systems, for human use. Plasten, S.A. (importer, dist.), Pinzon, 10, Valencia (1). WTD 1/71.

28349—GREECE—Pharmaceutical preparations for veterinary use. C.i.f.-Piraeus price quotations. A. Dedoussi, E.E. (importer, dist., mfr.), 77 Menandrou St., Athens 107. WTD 5/70.

28349—SPAIN—Pharmaceutical preparations for veterinary use. Plasten, S.A. (importer, dist.), Pinzon, 10, Valencia (1). WTD 1/71.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28421—VENEZUELA — Insecticides, repellants; household. Osiris C.A. (dist., mfr.), la transversal, parcela 3, Urbanizacion La Yaguara, and Apartado 6861, Caracas. WTD 4/71.

28423 — VENEZUELA — Disinfectants, other than agricultural. Osiris C.A. (dist., mfr.), la transversal, parcela 3, Urbanizacion La Yaguara, and Apartado 6861, Caracas. WTD 4/71.

28442 — TOGO — Perfumes, toilet water, colognes. Price quotations c.i.f. Lome. Correspondence requested in French. Mme. Frieda Guerard (importer, retailer), 4, rue des Ecoles, B.P. 522, Lome. WTD in prep.

28445—AUSTRIA — Cosmetics, particularly kind sold through department stores, supermarkets. Ulrich Kostineak (importer, dist./wholesale), Riemergasse 14, P.O. Box 380, A-1011 Vienna. WTD in prep.

Paints, varnishes, enamels

28514 — AUSTRIA — Interior water type paints. Leo K. Chini (importer, dist./wholesale, retailer), Bruennlbadgasse 12, A-1090 Vienna. WTD in prep.

Agricultural chemicals

28790 — VENEZUELA — Disinfectants, herbicidal, insecticidal, fungicidal preparations, for agriculture. Osiris C.A. (dist., mfr.), la transversal, parcela 3, Urbanizacion La Yaguara, and Apartado 6861, Caracas. WTD 4/71.

Chemical products

28990 — AUSTRIA — Rubberizing materials: rubber sealing compounds. Chemie- und Anlagenbau, Dipl. Ing. H. Zebisch & Co. K.G. (importer, dist./wholesale, mfr.), P.O. Box 24, A-4780 Schaerding/Inn. WTD in prep.

Fabricated rubber products

30692—AUSTRIA—Industrial hose; rubber & other. Chemie- und Anlagenbau, Dipl. Ing. H. Zebisch & Co. K.G. (importer, dist./wholesale, mfr.), P.O. Box 24, A-4780 Schaerding/Inn. WTD in prep.

30694 — JAMAICA — Rubber automobile mats. New Hope Enterprises Ltd., Mrs. G. P. Heholt, dir. (importer, retailer), 33 Half Way Tree Rd., Kingston 5. WTD 4/71.

30695—CANADA—Inflatable boats. Direct purchase & agency. George Angus (Canada) Ltd., D. E. Kellie, Marketing Services Mgr. (importer, mfr.), 11 Curity Ave., Toronto 16, Ontario. WTD in prep.

Plastic products

30791—SPAIN—Plastics stock shapes. Correspondence requested in Spanish, French. Industrias Plasticas del Centro (importer, dist.), Avenida Pedro Diez, 3, Madrid (19). WTD 3/71.

30795—SPAIN—Plastics gear, bearings, bushings, etc. Correspondence requested in Spanish, French. Industrias Plasticas del Centro (importer, dist.), Avenida Pedro Diez, 3, Madrid (19). WTD 3/71.

Luggage

31610—SOUTH AFRICA—Luggage. B. Behr & Co. (Pty.) Ltd. (importer, retailer), 36 Terminus St., P.O. Box 730, East London, Cape Province. WTD 3/71.

Glass products

32316 — NETHERLANDS — Fiberglass hose, flexible, for industrial purposes. Efka-Import (importer, dist.), Mr. Troelstrastraat 54, Zandvoort. WTD 8/71.

Steel mill products

● 33100 — BURMA — 75 items various quantities of steel sheets, plates, angles, and bars for shipment in September. Bid deadline May 15; Tender No. 13/Q/GD/70-71. Manager, Government Dockyard, Dawbone, Rangoon. Copies of tender documents available from Iron & Steel Industry Operations, BDC, Dept. of Commerce, Washington, D.C. 20230 (202-967-2613).

33121—SPAIN—Sinter and fuel dust from ore. Polvos Metalicos, S.A. (importer, dist.), Apartado Postal No. 65, Mondragon, Guipuzcoa. WTD 2/71.

33150—JAMAICA—Steel wire rod for drawing purposes; wiredrawing accessories: pastes and powders, drawing compounds; equipment for reconditioning and polishing dies. Requests samples. Quotations c.i.f. Kingston. Jamaica Reinforcement Co. Ltd., Robert Requa, Exec. Ofc. (importer, mfr.), 14 Bell Rd., Kingston 11. WTD 4/71.

33160 — JAMAICA — Steel rods, bars, plates, angles, miscellaneous metals. Quotations: c.i.f. Kingston. Specialists Construction Services Ltd., Robert Requa, Exec. Dir. (importer, retailer, mfr.), 14 Bell Rd., Kingston 11. WTD 4/71.

Rolling, drawing, extruding of nonferrous metals

33572—BOLIVIA—Cable, copper and copper base alloy, for electrical transmission. Correspond in Spanish. Cablebol S.R.L. (importer, retailer), Ave. America 2500, P.O. 394, La Paz. WTD 1/71.

Primary metal industries

33991—SPAIN—Powders of metal, primary. Polvos Metalicos, S.A. (importer, dist.), Apartado Postal No. 65, Mondragon, Guipuzcoa. WTD 2/71.

Cutlery, hand tools, general hardware

34291—CANADA—Marine hardware, including measuring & recording equipment. Direct purchase & agency. George Augus (Canada) Ltd., D. E. Kellie, Marketing Services Mgr. (importer, mfr.), 11 Curity Ave., Toronto 16, Ontario. WTD in prep.

Fabricated structural metal products

34411—BOLIVIA—Fabricated structural metal for buildings; iron and steel, aluminum. Empresa de Construcciones Inchausti, Zarate & Cia. (importer), Ave. Mariscal Santa Cruz 1336, P.O. Box 4712, La Paz. WTD 4/71.

Fabricated metal products

34920 — NETHERLANDS — Security equipment, including photographic, for installation in banks, stores, etc. Exclusive dist. Medox N.V. (importer, dist.), 6 Holleweg, Amerongen. WTD 4/71.

Farm machinery

35223—SPAIN—Planting, seeding, fertilizing machinery. Agro-Industrial del Centro de Espana, S.A. (importer, dist.), Carretera de Madrid, 6, Albacete. WTD 2/71.

35224—SPAIN—Plows, listers, harrows, rollers, pulverizers, stalk cutters, etc. Agro-Industrial del Centro de Espana, S.A. (importer, dist.), Carretera de Madrid, 6, Albacete. WTD 2/71.

35225—SPAIN — Harvesting machinery. Agro-Industrial del Centro de Espana, S.A. (importer, dist.), Carretera de Madrid, 6, Albacete. WTD 2/71.

35226 — SPAIN — Haying machinery. Agro-Industrial del Centro de Espana, S.A. (importer, dist.), Carretera de Madrid, 6, Albacete. WTD 2/71.

Metalworking machinery

● 35400 — KOREA — Four automatic lathes—201 mm. swing over bed, 3 tool posts, one 250 ton knuckle joint press, and two hypomatic lathes—225 mm. swing over bed. Tender No. MIB-ADB-81; bid deadline May 14. Technical Services Dept., The Medium Industry Bank (MIB) 36, 2-ka, Ulchi-ro, Chung-ku, Seoul. Copies of tender documents available from Metalworking Operations, BDC-649, Dept. of Commerce, Washington. D.C. 20230 ★(202-967-5652).

35410 — ISRAEL — N/C machine tools, versatile in application, particularly suited for manufacture of airframes and their spares. Appliance Merchandising Co. Ltd. (importer, agent), 14 Huberman St., P.O. Box 2085, Tel Aviv. WTD 1/71.

35423—INDIA—(CVA) dyeing machinery, 30 tons and 50 tons; riveting machine; vitrate machine. Model Engineering Works (mfr.), 3 Hosur Rd., Audugodi, Bangalore 30. WTD in prep.

35451 — SPAIN — Tungsten carbide (widia) metal cutting tools. Suministros Industriales Valfu (importer, dist.), Labayru 1, Bilbao. WTD 3/71.

35485 — JAMAICA — Wiredrawing machinery: used. Jamaica Reinforcement Co. Ltd., Robert Requa, Exec. Ofc. (importer, mfr.), 14 Bell Rd., Kingston 11. WTD 4/71.

Special industry machinery

35511—GERMANY—Ice cream freezers, milkshakes machines, complete installations to dispense ice cream, milkshakes. Prices requested c.i.f. European ports. Direct purchase & agency. Dr. Windhaus & Co. (importer, dist.), 13 Pionierstr., 4 Duesseldorf. WTD 3/71.

35593—MEXICO—Plastic blow molding machinery with small production capacity for manufacture of foamed polyesterene egg cartons, picnic coolers, similar products. Cesar Rodriguez Martinez (mfr.), Hidalgo Pte., 1653-Altos, Monterrey, N.L. WTD in prep.

35593 — SPAIN — Plastic dies, except molds. Correspondence requested in Spanish, French. Industrias Plasticas del Centro (importer, dist.), Avenida Pedro Diez, 3, Madrid (19). WTD 3/71.

35595—BRAZIL—Machinery for manufacture of nail polish vial tops; nail polish brushes. Barreto-Keller Industrias Eletricas Ltda. c/o Eduardo Alves Barreto (mfr.), Rua Conselheiro Nebias 1245, Sao Paulo, S.P. WTD in prep.

35595—FINLAND—Machinery for capacitor winding of metallized polyester, poly-carbonate film. Tervakoski Oy, Attn: Eero Heinonsalo, Export Mgr. (mfr.), 12400 Tervakoski. WTD in prep.

35595—JAMAICA—Machinery for making automobile battery parts, including grills, straps, poles, etc. Quotations: c.i.f. Kingston. Canalco Sales Distributors Ltd., H. E. West, Mng. Dir. (importer, agent), 131 East St., Kingston. WTD in prep.

General industrial machinery

35611—AUSTRIA—Pumps. Chemie- und Anlagenbau, Dipl. Ing. H. Zebisch & Co. K.G. (importer, dist./wholesale, exporter), P.O. Box 24, A-4780 Schaerding/Inn. WTD in prep.

35662—NEW ZEALAND—Variable speed gear boxes for farm implements with following specifications: variations in speed to be made by gear lever or similar simple change with up to 16 intermediate speeds; overall output ratio to be between 1-3 to 1-6; total reduction to be not more than 1-30; output torque to be in vicinity of 2,000 lbs/in.; ¾" dia. shaft preferred. P. & D. Duncan Ltd. (mfr.), P.O. Box 124, Christchurch. WTD in prep.

35690 — AUSTRIA — Filter equipment, preparatory plants for various industries. Direct purchase & agency. Chemie- und Anlagenbau, Dipl. Ing. H. Zebisch & Co. K.G. (importer, dist./wholesale, mfr.), P.O. Box 24. A-4780 Schaerding/Inn. WTD in prep.

Office, computing, accounting machines

● 35700—GREECE—Supply of two electronic computing machines, disk type, of relatively small volume and weight, for solution of basic geodetic problems. Tender No. 4/133/71, bid deadline May 26. Invited by the Ministry of Commerce, 4th Directorate of State Purchases, 75 Solonas St., Athens. Terms and specifications available on loan from the Business and Scientific Equipment Div., BDC-653, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-2939).

● 35700—GREECE—Supply 46 electronic computing machines. Tender No. 4/189/1971; bid deadline May 28. Invited by the Ministry of Commerce, 4th Directorate of State Purchases, 75 Solonos St., Athens. Terms and specifications available on loan from the Business & Scientific Equipment Div., BDC-653, Dept. of Commerce, Washington. D.C. 20230 ★(202-967-2939).

Service industry machinery

35811—GERMANY—Coin operated vending machines for food items of all kinds. Price requested c.i.f. European ports. Direct purchase & agency. Dr. Windhaus & Co. (importer, dist.), 13 Pionierstr., 4 Duesseldorf. WTD 3/71.

35820—GERMANY—Dry cleaning machines. Prices requested c.i.f. European ports. Direct purchase & agency. Dr. Windhaus & Co. (importer, dist.), 13 Pionierstr., 4 Duesseldorf. WTD 3/71.

35857—GERMANY—Soda fountain, soft drink dispenser. Prices requested c.i.f. European ports. Direct purchase & agency. Dr. Windhaus & Co. (importer, dist.), 13 Pionierstr., 4 Duesseldorf. WTD 3/71.

35891—BOLIVIA—Electronic stoves and ovens, commercial, including parts, accessories. Cablebol S. A. (importer, retailer), Avenida America 2500, P.O. Box 394, La Paz. WTD 1/71.

35891—ISRAEL—Microwave roasters for peanuts, commercial-type. Bepex Ltd. (importer, dist., agent), 21 Hasharon St., P.O. Box 14058, Tel Aviv. WTD in prep.

Electric transmission, distribution equipment

● **36100—AUSTRALIA**—Supply two 93 MVA and two 100 MVA transformers and accessories. Contract No. 5.; bid deadline June 30. The Manager & Secretary, Electricity Commission of New South Wales, G.P.O. Box 5257, Sydney N.S.W. 20001. Specifications available from Power Equip. Program, BDC-651. Rm. 5886C, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4188).

● **36100—AUSTRALIA**—(Papua, New Guinea) Supply four, possibly five, 500 to 600 kw. diesel generators, capable of burning Class A2 and B1 fuels, engine speed not to exceed 750 r.p.m., suitable for direct coupling to the alternator. Tender No. 55-70/71; bid deadline June 1. Specifications available for $100, refunded upon receipt of bona fide tender, from the Commission's Office, P.O. Box 1105, Boroko, Territory of Papua and New Guinea. Specifications also available for inspection at the Office of the District Contracts Board, Department of Supply, in Brisbane, Sydney and Melbourne.

● **36100 — NEW ZEALAND** — Supply & deliver seven 220 KV, 5,000 MVA circuit breakers for So. Dunedin & Halfway Bush Stations. Contract No. 564; bid deadline June 30. New Zealand Electricity Dept., P.O. Box 12144, Wellington North. Specifications available from Power Equipment Program, Dept. of Commerce, Rm. 5886C, Washington, D.C. 20230 ★(202-967-4188).

36112 — FINLAND — Testing equipment for capacitor windings made of metallized polyester, polycarbonate film. Tervakoski Oy, Attn: Eero Heinonsalo, Export Mgr. (mfr.), 12400 Tervakoski. WTD in prep.

36123—PHILIPPINES — Automatic voltage regulator. SN-74493; Resister, 10 ohms, 1 pc; Resister, 270 ohms, 1 pc. Clavecilla Radio System (telecommunication service), Manhattan Bldg., 415 Nueva St., Manila, P.O Box 64, Manila. WTD in prep.

Electrical industrial apparatus

36210 — INDIA — Flame proof, explosion proof squirrel cage induction type electric motors, motor starters, push buttons, limit switches. Specs from Business Opportunities Staff, BOS-580, Rm. 3515, Dept. of Commerce, Washington, D.C, 20230. Anup Engineering Ltd. (mfr.), Anil Starch's Premises, Anil Rd., P.B. No. 1164, Ahmedabad 2. WTD in prep.

Radio, television receiving sets

36511 — JAMAICA — Automobile radios. New Hope Enterprises Ltd., Mrs. G. P. Heholt, Dir. (importer, retailer), 33 Half Way Tree Rd., Kingston 5. WTD 4/71.

36515—JAMAICA—Cassette tape recorders for automobiles. New Hope Enterprises Ltd., Mrs. G. P. Heholt, Dir. (importer, retailer), 33 Half Way Tree Rd., Kingston 5. WTD 4/71.

Communication equipment

● **36600 — GREECE**—Supply of four superheterodyne radio receivers covering frequency range used in the Merchant Marine. Tender No. 4/118/71, bid deadline May 19. Copies of tender announcement and specifications available from the Ministry of Commerce, 4th State Purchases Directorate, 75 Solonos St., Athens, or on a short-term loan to firms located in the U.S. from the Communications Div., BDC-554, Rm. 4320, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4823).

36626—FRANCE—Electronic measuring equipment for laboratories, industry. Emitronics (importer, dist., agent), 13, rue Quentin Bauchard, Paris, 8e. WTD in prep.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

38213—CANADA—Industrial process instruments; temperature, pressure, humidity etc., environmental control systems. Direct purchase & agency. George Angus (Canada) Ltd., D. E. Kellie, Marketing Services Mgr. (importer, mfr.), 11 Curity Ave., Toronto 16, Ontario. WTD in prep.

35733 — SWITZERLAND — Electronic data processing peripherals, parts, software. Impetus SA, Attn: Terence E. Furey (agent), Via Bern 2, 6900 Lugano. WTD 4/71.

38210—SWITZERLAND — Industrial process, measuring instruments; all kinds. Impetus SA, Attn: Terence E. Furey (agent), Via Bern 2, 6900 Lugano. WTD 4/71.

36112 — ENGLAND — Test equipment for electronic, electrical circuits. Promecon Ltd. (mfr., agent, exporter), Sudbury House, Eastcote Ave., Greenford, Middlesex. WTD 3/71.

37141—ENGLAND—Gray iron automobile castings for regular production use including brake drums, brake discs for cars, trucks with particular reference to cars of compact size; cylinder heads, cylinder blocks for compact size engines. Producer must have automatic lines; willing to supply in required volume over protracted period. Drawings, specifications provided when contacts made. Bartella Ltd., Dennis J. Mabutt, Technical Sales Dir. (agent), 22-25 Sackville St., London, W1X 1DE. Cables ALLETRAB LONDON; telex 23369. WTD in prep.

Electronic components, accessories

36741—SWITZERLAND—MSI, LSI integrated circuits. CHC, Hutterli & Cie. (importer, mfr.), Wasenstrasse 4, 2502 Bienne. WTD 11/70.

36790 — SWITZERLAND—Capacitors, resistors. CHC, Hutterli & Cie. (importer, mfr.), Wasenstrasse 4, 2502 Bienne. WTD 11/70.

36795—BOLIVIA—Parts, accessories for electronic devices, electronic tubes. Correspondence requested in Spanish. Marvin S.R.L. (importer, retailer), Calle Sagarnaga 178, P.O. Box 1363, La Paz. WTD 2/71.

Motor vehicles, equipment

37130 — THAILAND — Fire department vehicles complete with fire fighting equipment. Requests catalogs, c.i.f. Bangkok prices. Device Trading Ltd. Partnership (importer, dist.), 222/11-12 Larn Luang Rd., Bangkok. WTD in prep.

37141—BOLIVIA—Parts and accessories for passenger cars, trucks, busses; shock absorbers; gaskets. La Casa del Jeep de Juan Orihuela B. (importer, retailer), Calle Federico Zuazo 1889, P.O. Box 541, La Paz. WTD 11/70.

37141—JAMAICA—Auto accessories, all makes. Quotations: c.i.f. Kingston. Canalco Sales Distributors Ltd., H. E. West, Mng. Dir. (importer, agent), 131 East St., Kingston. WTD in prep.

37141—JAMAICA—Auto parts, accessories. New Hope Enterprises Ltd., Mrs. G. P. Heholt, Dir., (imp., retailer), 33 Half Way Tree Rd., Kingston 5. WTD 4/71.

Aircraft, parts

37210—INDIA—Helicopter or fixed wing aircraft complete with accessories for agricultural spraying operations. R. J. Patel, Chief Projects Officer, Gujarat Agro-Industries Corp. Ltd. (government agency), Khet-Udyog Bhavan, Opposite High Court, Navrangpura, Ahmedabad 14. WTD in prep.

Ship building, repairing

37313—INDIA—Two 86 feet ocean-going trawlers fitted with Westinghouse LVS freezing system, or equal. R. J. Patel, Chief Projects Officer, Gujarat Agro-Industries Corp. Ltd. (government agency), Khet-Udyog Bhavan, Opposite High Court, Navrangpura, Ahmedabad 14. WTD in prep.

Instruments for measuring physical characteristics

● **38200 — COLOMBIA** — Supply 40,000 water meters of 12.7 mm. diameter (equivalent to ½"), with alternatives of the speed type, single jet and of the volumetric type. Tender No. 98-OP-1c; bid deadline May 17. Specifications may be purchased at the Direccion del Plan Maestro de Acueducto, Carrera 4D, No. 22-B-60, Piso 3, Bogota, for 1000 Colombian pesos (19.42 Colombian pesos equals U.S. $1) for first set and 500 pesos for each additional set.

Surgical, medical instruments

38410 — GERMANY — Surgical, medical instruments, apparatus. Price quotation c.i.f. Hamburg or Bremen. Direct purchase & agency. Helmut Kirchner (importer, dist., agent). 6508 Alzey/Rhh., Am Wegweiser 28. WTD 3/71.

38421—GERMANY—Surgical appliances, supplies. Price quotation c.i.f. Hamburg or Bremen. Direct purchase & agency. Helmut Kirchner (importer, dist., agent), 6508 Alzey/Rhh., Am Wegweiser 28. WTD 3/71.

38421 — GREECE—Surgical dressings (bandages, elastic). C.i.f.-Piraeus price quotations. A. Dedoussi, E.C. (importer, dist., mfr.), 77 Menandrou St., Athens 107. WTD 5/70.

Toys, amusement, sporting goods

39410—ENGLAND—Ornate chess sets of wood, ivory, brass, alabaster, various materials; chess boards in same materials. Brannan & Chandler (importer, retailer), 68, Conway Rd., London N.14. WTD in prep.

39410—JAPAN—Radio control flying model kits, accessories. Esaki Model Mfg. Co., Inc. (importer, dist., exporter), 1, 4-chome, Kogani-machi, Gifu City. WTD 3/71.

39491 — SOUTH AFRICA—Fishing tackle, equipment. B. Behr & Co. (Pty.) Ltd. (importer, retailer), 36 Terminus St., P.O. Box 730, East London, Cape Province. WTD 3/71.

39493—CANADA—Underwater breathing equipment, skin diving equipment, scuba type. Direct purchase & agency. George Angus (Canada) Ltd.; D. E. Kellie, Marketing Services Mgr. (imp., mfr.), 11 Curity Ave., Toronto 16, Ontario. WTD in prep.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Field crop farms

01130 — PANAMA — Edible dry beans. Haralambos Tzanetatos, Inc. (imp., dist., agent), Box 6625, Panama 5. WTD 4/71.

Tanks, components

19310—TAIWAN—Military vehicle parts, tank components, new or surplus. Enterprise Assocs. (agent), P.O. Box 58116, Taipei. WTD in prep.

Confectionery

20713—AUSTRIA — Top-quality confectionery, other ready-made food specialties for sale to specialized retail stores, hotels, etc. Turnier Handelsges mbH (importer, dist./wholesale, retailer), Rechte Wienzeile 47/II.Stg.25, A-1050 Vienna. WTD in prep.

Beverage industries

20853—AUSTRIA—Alcoholic beverages for sale to specialized retail stores, hotels, restaurants, snack bars, etc. Turnier Handelsges mbH (importer, dist./wholesale, retailer), Rechte Wienzeile 47/II. Stg. 25, A-1050 Vienna. WTD in prep.

Broad woven fabric mills, wool

22312—AUSTRIA—Paper makers' felts. Dipl. Ing. Klaus Schmidthuber, Industriebedarf (commission agent), Quellenstrasse 55, P. O. Box 611, A-1101 Vienna. WTD in prep.

Knitting mills, products

22522—THAILAND—Socks, acrylic, for men. Requests catalogs, c.i.f. Bangkok prices. Kim Hong Ltd. Partnership (importer, dist.), 994 Songwad Rd., Sunchow Mai, Bangkok. WTD in prep.

22562—SOUTH AFRICA—Footwear linings. Lockhart & McKenna (Pty.) Ltd. (agent), P.O. Box 525, Pietermaritzburg, Natal. WTD 3/71.

Floor covering mills, products

22710—AUSTRIA — Wall carpets; runners, pure wool, 90 cm. wide. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II. Stg. 25, A-1050 Vienna. WTD in prep.

22790 — AUSTRIA — Mats of manmade materials for use in wet areas: factories, garages, etc. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II.Stg. 25, A-1050 Vienna. WTD in prep.

22790—EL SALVADOR—Carpets, rugs: indoor, woven & nonwoven. Andres Thoresen (imp., agent), Thoresen & Co., Apartado Postal 267, 6a. Ave. Norte y la Calle Oriente. San Salvador. WTD 2/71.

Textile goods

22940—SPAIN—Processed textile waste; remnants. Camilo Masia Amorós (importer, dist., agent), Isabel la Católica, 34, Alcoy, Alicante. WTD 4/71.

22952 — SOUTH AFRICA — Synthetic leather for footwear industry. Lockhart & McKenna (Pty.) Ltd. (agent), P.O. Box 525, Pietermaritzburg, Natal. WTD 3/71.

22953—AUSTRIA—Adhesive tape for hot sealing of carpets. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II. Stg. 25, A-1050 Vienna. WTD in prep.

Pulp mills, products

26112—AUSTRIA—Chemical paper pulp. Dipl. Ing. Klaus Schmidthuber, Industriebedarf (commission agent), Quellenstr. 55, P. O. Box 611, A-1101 Vienna. WTD in prep.

Paper mills

26211 — SPAIN — Newsprint. Alejandro Safrin (agent), Avda. Menéndez Pelayo, 15, Madrid (9). WTD 3/71.

Converted paper, paperboard products

26495—AUSTRIA—Decorative book imitations for open shelves. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II. Stg. 25, A-1050 Vienna. WTD in prep.

Industrial chemicals

28153—AUSTRIA — Synthetic organic pigments, lakes and toners as well as other organic chemicals for use in metal, paint, paper, cosmetics, rubber, plastics processing, petroleum industries. DLS-Chemie, Dr. Ing. Ludwig Schoen (agent), Industriegelaende, A-2351 Wr. Neudorf. WTD in prep.

28163—THAILAND—Poster colors. Requests catalogs, c.i.f. Bangkok prices. Bombay Stationery Ltd. Partnership (importer, dist.), 480-482 Siphya Rd., P.O. Box 1391, Bangkok. WTD in prep.

28180—SPAIN—All classes of industrial organic chemicals. Rafael Casan (agent), Alvaro de Bazan, 15, Valencia (10). WTD 3/71.

28183—AUSTRIA — Synthetic organic chemicals for petroleum, petrochemical industries. Eurochem GmbH (importer, agent, exporter), Paradisgasse 71, A-1190 Vienna. WTD 4/71.

28185—AUSTRIA — Industrial organic chemicals for petroleum, petrochemical industries. Eurochem GmbH (importer, agent, exporter), Paradisgasse 71, A-1190 Vienna. WTD 4/71.

28190—SPAIN—All classes of industrial inorganic chemicals. Rafael Casan (agent), Alvaro de Bazan, 15, Valencia (10). WTD 3/71.

28194—VIET-NAM—Glutamic acid for manufacture of monosodium-glutamate; white 98.5% to 99% purity. Packing: 50 kgs. per jute bag inside and polypropylene bag outside. Annual requirement: 4 tranches of 150 tons each. Sample required: 2 lbs. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

28198—AUSTRIA — Chemical catalytic preparations as well as other inorganic compounds for use in metal, paint, paper, cosmetics, rubber, plastics processing, petroleum, road building industries. DLS-Chemie, Dr. Ing. Ludwig Schoen (agent), Industriegelaende, A-2351 Wr. Neudorf. WTD in prep.

28199—AUSTRIA—Industrial inorganic chemicals for petroleum, petrochemical industries. Eurochem GmbH (importer, agent, exporter), Paradisgasse 71, A-1190 Vienna. WTD 4/71.

28199—EL SALVADOR — Inorganic industrial chemicals as used in manufacture of storage batteries, in textile industry. Andres Thoresen (importer, agent), Thoresen & Co., Apartado Postal 267, 6a. Avenida Norte y la. Calle Oriente, San Salvador. WTD 2/71.

Synthetic materials

28210—SWITZERLAND — Plastics for plastics processing industries in form of granules, powders, liquids, sheets, strips, similar items. Luscher Leber AG, Attn: Mr. Hunziker, Dir. (dist., agent), Zeughausgasse 16, 3000 Bern. WTD in prep.

28219—AUSTRIA—Plastics, resin materials for building industry. Jos. Stork & Co. (importer, dist./wholesale, agent), Rudolf v. Alt-Platz 7, P.O. Box 251, A-1031 Vienna. WTD in prep.

Drugs

28341—SWITZERLAND—Original ethical pharmaceutical preparations affecting metabolic diseases, for human use. SODIP SA, Attn: Jean-Paul Arnold, Chairman of Board (dist., agent), 44, rue Chandieu, 1211 Geneva 16. WTD in prep.

28342—SWITZERLAND—Original ethical pharmaceutical preparations acting on central nervous system, sense organs for human use. SODIP SA, Attn: Jean-Paul Arnold, Chairman of Board (dist., agent), 44 rue Chandieu, 1211 Geneva 16. WTD in prep.

28343—SWITZERLAND—Original ethical pharmaceuticals acting on cardiovascular system for human use. SODIP SA, Attn: Jean-Paul Arnold, Chairman of Board (dist., agent), 44, rue Chandieu, 1211 Geneva 16. WTD in prep.

28345—SWITZERLAND—Original ethical pharmaceuticals acting on digestive or genitourinary system for human use. SODIP SA, Attn: Jean-Paul Arnold, Chairman of Board (dist., agent), 44, rue Chandieu, 1211 Geneva 16. WTD in prep.

28348—SWITZERLAND—Original ethical pharmaceuticals affecting parasitic, infective diseases, for human use. SODIP SA, Attn: Jean-Paul Arnold, Chairman of Board (dist., agent), 44, rue Chandieu, 1211 Geneva 16. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28411—AUSTRIA — Specialty metal

cleaners for use by petroleum, petrochemical industries. Eurochem GmbH (importer, agent, exporter), Paradisgasse 71, A-1190 Vienna. WTD 4/71.

28415—AUSTRIA—Carpet cleaners, anti-static sprays for flooring of synthetic materials. Raumkomfort Handels- u. Ausstattungs-GmbH (dist., agent), Rechte Wienzeile 47/II.Stg. 25, A-1050 Vienna. WTD in prep.

28415—FRANCE—Household detergents. Abrasifs Hermes (importer, mfr.), 61 rue Chaptal, 92-Levallois-Perret. WTD in prep.

28423—AUSTRIA—Household chemicals for nonfood departments of supermarkets; particularly aerosols. DLS-Chemie, Dr. Ing. Ludwig Schoen (agent), Industriegelaende, A-2351 Wr. Neudorf. WTD in prep.

28423—AUSTRIA — Newly developed specialty cleaning, sanitation products for offices, stationery and office supply stores, perfumeries, households, etc., deodorants, cleaners for cars. Turnier Handelsges mbH (importer, dist./wholesale, retailer), Rechte Wienzeile 47/II.Stg. 25, A-1050 Vienna. WTD in prep.

28424—AUSTRIA — Household chemicals for nonfood departments of supermarkets; particularly aerosols. DLS-Chemie, Dr. Ing. Ludwig Schoen (agent), Industriegelaende, A-2351 Wr. Neudorf. WTD in prep.

28424 — FRANCE — Furniture polishes, cleaners; emulsions. Abrasifs Hermes (importer, mfr.), 61 rue Chaptal, 92-Levallois-Perrett. WTD in prep.

28430—AUSTRIA—Surface active agents for detergent purposes, for emulsifying, wetting, penetrating, similar purposes. Eurochem GmbH (importer, agent, exporter), Paradisgasse 71, A-1190 Vienna. WTD 4/71.

28430—KOREA—Surface active agents for rubber, plastic. So Kwang Industry & Supply Co. (agent), I.P.O. Box 1209, Seoul. WTD in prep.

28440—YUGOSLAVIA—Perfumes, cosmetics, other toilet preps. Union-Impex (imp., agent), P.p. 277. Attn: Ljubo Kulic, Dir. Gen., 71001 Sarajevo. WTD 4/70.

Agricultural chemicals

28790—FRANCE — Agricultural pesticides, miscellaneous agricultural chemicals of good quality, including fungicides, herbicides, phytoactin, soil conditioners, fertilizers. Correspondence requested in French. Union Agricole du Sud Ouest (importer, dist., agent), 62 Ave. H. Farbos, 40 Mont de Marsan. WTD 2/71.

Chemical products

28993—AUSTRIA—Concrete curing and floor hardening materials, water proofing compounds, insulation products for building protection, other new chemical compounds for building industry; chemicals, chemical products for metal, metal working industries, also such for paint, lacquer, plastics processing industries. Jos. Stork & Co. (importer, dist./wholesale, agent), Rudolf v. Alt-Platz 7, P.O. Box 251, A-1031 Vienna. WTD in prep.

28993—AUSTRIA — Advanced chemical products for offices, stationery, office supply stores, perfumeries, hotels, restaurants, households; automotive sprays. Turnier Handelsges mbH (importer, dist./wholesale, retailer), Rechte Wienzeile 47/II.Stg./25, A-1050 Vienna. WTD in prep.

Petroleum refining

29117—FRANCE — Anti-adhesive lubricant for molds in plastic industry. Cofral (mfr.), 4 rue Louise Michel, 92 - Levallois. WTD in prep.

Fabricated rubber products

30691—ITALY—Rubber conveyor belts. Advanced products. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

30692—ITALY—Rubber hose and tubing, including hose for agricultural use and tubing for oleodynamic industry. Firm interested in technically advanced products only. Temperani, Bianca (importer, agent, wholesaler, 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

30695—ITALY—Special rubber packing. Firm interested in technically advanced materials only. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

Plastic products

30795—ITALY—Special plastics packing. Firm interested in technically advanced materials only. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

30796—THAILAND—Construction plastic products reinforced with glassfiber, corrugated and flat sheets for roofing, siding. Requests catalogs, c.i.f. Bangkok prices. Tirachai Import Co., Ltd. (importer, dist., commission agent), 427/24-25 Pracharas II Rd., Bangsue, Dusit, Bangkok. WTD in prep.

30798—AUSTRIA — Decorative clothes hangers, wall decorating articles, only top quality items. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II.Stg. 25, A-1050 Vienna. WTD in prep.

30798—ITALY—Plastic hose and tubing for agricultural use and oleodynamic industry. Firm interested in technically advanced products only. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco. 50144 Florence. WTD 3/71.

Leather tanning, finishing

31110 — SOUTH AFRICA — Leather for footwear industry. Lockhart & McKenna (Pty.) Ltd. (agent), P.O. Box 525, Pietermaritzburg, Natal. WTD 3/71.

Boot, shoe cut stock, findings

31310 — SOUTH AFRICA — Boot, shoe findings. Lockhart & McKenna (Pty.) Ltd. (agent), P.O. Box 525, Pietermaritzburg, Natal. WTD 3/71.

Luggage

31610—SWEDEN — Luggage. Interbag Ladervaror AB (importer, dist., agent), Vegagatan 56, Box 11052, S-400 30 Goteborg 11. WTD 3/71.

Handbags, personal leather goods

31710—SWEDEN — Women's handbags. Interbag Ladervaror AB (importer, dist., agent), Vegagatan 56, Box 11052, S-400 30 Goteborg 11. WTD 3/71.

31720—SWEDEN — Personal leather goods. Interbag Ladervaror AB (importer, dist., agent), Vegagatan 56, Box 11052, S-400 30 Goteborg 11. WTD 3/71.

Cement

32410—AUSTRIA — Special cements; other special building materials. Jos. Stork & Co. (importer, dist./wholesale, agent). Rudolf v. Alt-Platz 7, P.O. Box 251, A-1031 Vienna. WTD in prep.

Structural clay products

32550—AUSTRIA—Refractory materials, products. Jos. Stork & Co. (importer, dist./wholesale, agent), Rudolf v. Alt-Platz 7, P.O. Box 251, A-1031 Vienna. WTD in prep.

Pottery, related products

32690 — AUSTRIA — Decorative flower pots, wall decorations. Raumkomfort Handels- u. Ausstattungs GmbH (dist., agent), Rechte Wienzeile 47/II.Stg.25, A-1050 Vienna. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32912—FRANCE—Nylon abrasive pads for home use. Abrasifs Hermes (importer, mfr.), 61 rue Chaptal, 92-Levallois-Perret. WTD in prep.

32932—AUSTRIA—Special packings for industry. Chemie- und Anlagenbau, Dipl. Ing. H. Zebisch & Co. K.G. (importer, dist./wholesale, mfr.), P.O. Box 24, A-4780 Schaerding/Inn. WTD in prep.

32933—ITALY — Asbestos, asbestos-metallic, asbestos-rubber packing. Advanced materials. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

32950 — AUSTRIA — Sulfur and china clay for paper industry. Dipl. Ing. Klaus Schmidthuber, Industriemedarf (commission agent), Quellenstr. 55, P.O. Box 611, A-1101 Vienna. WTD in prep.

Rolling, drawing, extruding of nonferrous metals

33511—PAKISTAN — Super enamelled copper wire—14 to 40 S.W.G. Requests catalogs, quotations, c. & f., Karachi. Allied Engineering Corp. (agent), 76/10 Drigh Rd., Karachi 8. WTD in prep.

33560—SPAIN—Precious metals. Alejandro Safrin (agent), Avda. Menendez Pelayo, 15, Madrid (9). WTD 3/71.

33572—VIET-NAM—Microphone wire, 1 and 2 conductors; requirements: 500,000 meters (50 meters per spool); sample. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

33574—PAKISTAN — Telephone cables with copper conductors, PVC insulated, PVC sheathed types. Requests catalogs, quotations, c. & f., Karachi. Allied Engineering Corp. (agent), 76/10 Drigh Rd., Karachi 8. WTD in prep.

Nonferrous foundries

33610 — SWEDEN — Household cooking utensils. AB August Hall (importer, dist.), S-34200 Alvesta. WTD 4/71.

Cutlery, hand tools

34232—FRANCE—Garden tools. Etablissements Saelen (imp., mfr.), 512 ave. de Dunkerque, 59-Lambersart. WTD in prep.

Plumbing fixtures

34320—JAMAICA — Bathroom fixtures, hardware, accessories. Herbert A. Provost (agent), 16 Duke St., Kingston. WTD in prep.

34320 — PANAMA — Plumbing fixtures. Agua Buena, S.A. (importer, dist., retailer), Box 157, Panama 9A. WTD 3/71.

Fabricated structural metal products

34435—PANAMA—Pressure tanks. Agua Buena, S.A. (importer, dist., retailer), Box 157, Panama 9A. WTD 3/71.

Metal stampings

34610—JAMAICA — Kitchenware, especially breadboxes, cannister sets, dustpans, wastepaper baskets, wall utensil sets. Herbert A. Provost (agent), 16 Duke St., Kingston. WTD in prep.

Fabricated wire products

34815—AUSTRIA—Paper machine wire cloth. Dipl. Ing. Klaus Schmidthuber, Industriebedarf (commission agent), Quellenstr. 55, P. O. Box 611, A-1101 Vienna. WTD in prep.

Engines, turbines

35112 — PANAMA — Turbines. Agua Buena, S.A. (importer, dist., retailer), P.O. Box 157, Panama 9A. WTD 3/71.

Farm machinery

35220—FRANCE — Garden implements, machinery. Etablissements Saelen (importer, mfr.), 512 avenue de Dunkerque, 59-Lambersart. WTD in prep.

35220—SPAIN—Farm machinery. Casli, S.A. (importer, dist.), Sotomayor, 13, Madrid (3). WTD 2/71.

35220—SPAIN—Farm machinery. Correspondence requested in Spanish. Manuel Santervas Gómez (agent), Encina, 22, Pozoblanco, Córdoba. WTD 3/71.

35222—VIET-NAM — Farm machinery, equipment including tractors, parts, attachments. Pan Mechanics Trading Co. (Viet-Nam) (importer, dist., agent), 135 Nguyen Hue Blvd., Rm. 320, Saigon. WTD in prep.

35228—BOLIVIA—Machines for preparing farm crops for market including parts, attachments. INDEVCO S.A. (importer, agent), Calle Colón 282, P. O. Box 1497, La Paz. WTD 12/70.

35228 — PANAMA — Windmills. Agua Buena, S.A. (importer, dist., retailer), P. O. Box 157, Panama 9A. WTD 3/71.

Construction, mining, materials handling machinery, equipment

35310—SPAIN—Construction machinery. Casli, S.A. (importer, dist.), Sotomayor, 13, Madrid (3). WTD 2/71.

35319—AUSTRIA — Pipeline equipment. Schiff & Stern GmbH (dist./wholesaler, mfr., exporter), Untere Donaustrasse 41, P. O. Box 251, A-1021 Vienna. WTD in prep.

35321 — BOLIVIA — Mining machinery, equipment; underground. Indevco S.A. (importer, agent), Calle Colón 282, P. O. Box 1497, La Paz. WTD 12/70.

35333—BOLIVIA—Machinery, equipment for oil, gas field production. Arturo Prudencio Guzmán (importer, agent), Plaza Venezuela 1456, P. O. Box 228, La Paz. WTD 4/70.

35333 — BOLIVIA — Machinery, equipment for oil, gas production. Indevco S.A. (importer, agent), Calle Colón 282, P. O. Box 1497, La Paz. WTD 12/70.

35361 — VIET-NAM — Construction machinery; equipment, including cranes. Pan Mechanics Trading Co. (Viet-Nam) (importer, agent), 135 Nguyen Hue Blvd., Rm. 320, Saigon. WTD in prep.

Metalworking machinery

35410 — SPAIN — Machine tools, metalcutting types. Sociedad para Investigaciones y Aplicaciones Industriales, S.A. (SIAISA) (importer, dist.), Alcalá, 52, Madrid (14). WTD 2/71.

35420 — SPAIN — Machine tools, metalforming types. Sociedad para Investigaciones y Aplicaciones Industriales, S.A. (SIAISA) (importer, dist.), Alcalá, 52, Madrid (14). WTD 2/71.

35450—SPAIN—Machine tool accessories. Sociedad para Investigaciones y Aplicaciones Industriales, S.A. (SIAISA) (importer, dist.), Alcalá, 52, Madrid (14). WTD 3/71.

Special industry machinery

35512 — THAILAND — Machinery for manufacturing instant coffee including one roaster, grinder, extractor, dryer, and related, with capacity of 100-200 kg. per day; ground coffee roasting and grinding plant with one roaster and grinder with capacity of 100-200 kg. per day. Requests catalogs, c.i.f. Bangkok prices, detailed plant layout. Rocksand (importer, dist.), 107 Patpong Rd., P. O. Box 2294, Bangkok. WTD in prep.

35550 — SWITZERLAND — Auxiliary equipment, apparatus for printing industries. Novelty items to be used in connection with printing presses. Lüscher Leber AG, Attn: Mr. Hunziker, Dir. (dist., agent), Zeughausgasse 16, 3000 Bern. WTD in prep.

35552 — GERMANY — Screen-printing machinery for production of printed circuits. Karl Gronemeyer KG. (importer, mfr., agent), Moerfelder Landstr. 35, 6070 Langen. WTD 4/71.

35590 — SWITZERLAND — Waste and paper shredding machines. Luscher Leber AG, Attn: Mr. Hunziker, Dir. (dist., agent), Zeughausgasse 16, 3000 Bern. WTD in prep.

35595—AUSTRIA—Continuously operating drying units for tobacco leaf. Schiff & Stern GmbH (mfr., exporter), Untere Donaustrasse 41, P. O. Box 251, A-1021 Vienna. WTD in prep.

General industrial machinery

35614—SOUTH AFRICA—All types of oil-free compressors. Godfrey Engineering S.A. (Pty.) Ltd., Attn: R. Shone (agent), P.O. Box 472, Kempton Park, Transvaal. WTD 3/71.

35614 — VIET-NAM — Air compressors. Pan Mechanics Trading Co. (importer, dist., agent), 135 Nguyen Hue Blvd., Rm. 320, Saigon. WTD in prep.

35690 — PANAMA — Packaging machinery. PAK-AL, S.A. (importer, agent, retailer), Box 11-180, Panama 6. WTD 4/71.

35690—THAILAND—Sprinkler systems, automatic. Requests catalogs, c.i.f. Bangkok prices. Exclusive agency. Device Trading Ltd. Partnership (importer, dist.), 222/11-12 Larn Luang Rd., Bangkok. WTD in prep.

Office, computing machines

35731—SPAIN — Electronic computing equipment. Unitronics, S.A. (importer, dist.), Princesa, 1, Madrid (8). WTD 3/71.

35733—SWITZERLAND — Electronic data processing peripherals for commercial use, collection and input equipment only; computer output microfilm systems. Allorgan AG, Attn: H. B. Wallimann (dist., retailer), General-Guisan-Strasse 52, 5001 Aarau. WTD 4/71.

35741—SWITZERLAND—Electronic calculating, accounting, invoicing machines. Allorgan AG, Attn: H. B. Wallimann (dist., retailer), General-Guisan-Strasse 52, 5001 Aarau. WTD 4/71.

35790—AUSTRIA — Advanced office equipment, supplies for improvement of office work. Turnier Handelsges mbH (importer, dist./wholesale, retailer), Rechte Wienzeile 47/II.Stg./25, A-1050 Vienna. WTD in prep.

Service industry machines

35853—YUGOSLAVIA—Commercial, industrial refrigeration machinery, equipment. Soko, Mostar, Attn: Obreht J. Stefan, Asst. Mng. Dir. (mfr., agent), 79000 Mostar. WTD in prep.

35892—FRANCE—Floor cleaning machines, industrial. Grupelec (importer, wholesaler), 21 ter, rue des Taillandiers 75 - Paris 11e. WTD in prep.

35893—FRANCE—Vacuum cleaners, industrial. Grupelec (importer, wholesaler), 21 ter, rue des Taillandiers, 75 - Paris 11e. WTD in prep.

Electrical industrial apparatus

36210 — SWITZERLAND — High speed stepping motors for digital motions, x/y positioning. Dumaco AG, Attn: Mr. Manta, Jr. (dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 7/70.

36211—PAKISTAN — Fractional horse power mosors. Requests catalogs, quotations, c. & f., Karachi. Allied Engineering Corp. (agent), 76/10 Drigh Rd., Karachi 8. WTD in prep.

36216—PAKISTAN—Electric motors 40 hp. and above. Requests catalogs, quotations, c. & f., Karachi. Allied Engineering Corp. (agent), 76/10 Drigh Rd., Karachi 8. WTD in prep.

36220—MEXICO — Industrial controls, services. Ing. Hector Tassinari Industriebau Monterrey, S.A. (dist., mfr., agent), Edificio Santos- Despacho 610, F. I. Madero y V. Carranza, Monterrey, N.L. WTD in prep.

36220—SWITZERLAND—Industrial controls all kinds, for machine tools, high precision machinery. Dumaco AG, Attn: Mr. Manta, Jr. (dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 7/70.

36220—SWITZERLAND—Industrial controls, all kinds. Impetus SA, Attn: Terence E. Furey (agent), Via Berna 2, 6900 Lugano. WTD 4/71.

36231—AUSTRIA—Special welding machines as used in manufacture of car bodies. Schiff & Stern GmbH (importer, dist., retailer), Untere Donaustrasse 41, P.O. Box 251, A-1021 Vienna. WTD in prep.

36291—PAKISTAN — Capacitors rated for 50 KVA and 100 KVA -600/1100 volt grade for power factor improvement on the 430 volt side of an electrical installation. Requests catalogs, quotations, c. & f., Karachi. Allied Engineering Corp. (agent), 76/10 Drigh Rd., Karachi 8. WTD in prep.

Household appliances

36344—VIET-NAM—Parts, attachments for household electric appliances. A Son

(Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

Electric lighting, wiring equipment

36420 — GERMANY — Lighting fixtures, incandescent lamps, fluorescent lamps. discharge lamps. Prices requested c.i.f. European ports. Interlumen Lichtarchitektur GmbH (importer, mfr., agent), 51 Muehlenbach, 5 Koeln. WTD 3/71.

36422—EL SALVADOR — Commercial electric fixtures, installation accessories. Andres Thoresen (importer, agent), Thoresen & Co., Apartado Postal 267, 6a. Avenida Norte y la. Calle Oriente, San Salvador. WTD 2/71.

Radio, television receiving sets

36510—GERMANY — Radios, television sets, record players, phonographs. Correspondence requested in German. Vogt & Co., Business Mgr., Manfred Treiber (importer, dist., agent), A 2, 8, D-6800 Mannheim 1, Baden-Wuerttemberg. WTD 4/71.

36510—SWITZERLAND — Audio, hi-fi, television equipment, novelties, all kinds. Requests offers from manufacturers only. Impetus AG, Attn: Terence E. Furey (agent), Via Berna 2, 6900 Lugano. WTD 4/71.

36511 — VIET-NAM — Radio, television sets, components. A Son (Montasie Representative) (agent), 66-A Cong Ly, P.O. Box 1061, Saigon. WTD 4/70.

Communications equipment

36621 — TAIWAN — Military electronic communication equipment, components, new or surplus. Enterprise Assocs. (agent), P. O. Box 58116, Taipei. WTD in prep.

36621 — VIET-NAM — Telecommunications equipment, intercoms. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

Electronic components, accessories

36742—VIET-NAM — Germanium power transistors; requirements: 5,000 pieces in 2N554; 1,000 pieces in 2N301. Sample required: 4 pieces per each category. Quotations: c.i.f. and c indicated separately. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

36743 — VIET-NAM — Zener diodes; requirements: 30,000 pieces IN 4004; 10,000 pieces IN 4005; 10,000 pieces IN 4006. Sample required: 4 pieces per category. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

36790 — SWITZERLAND — Electronic components, accessories, instruments, all kinds. Requests offers from manufacturers only. Impetus SA, Attn: Terence E. Furey (agent), Via Berna 2, 6900 Lugano. WTD 4/71.

36790—SWITZERLAND—Electronic specialties, all kinds, accessories, control components, for industrial use. Dumaco AG, Attn: Mr. Manta Jr. (dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 7/70.

Motor vehicles, equipment

37141—AUSTRALIA—Motor vehicle accessories. Banox Mfg. Co. (importer, dist., agent), Cnr. Lutwyche & Eildon Rds., Windsor, Brisbane, Queensland 4030. WTD 6/70.

37141—BOLIVIA—Parts, accessories for passenger cars, buses. C.I.R.A. S.A. Cía. Importadora de Repuestos para Automotores (agent, retailer), Calle Calama esq. San Martín, P. O. Box 1282, Cochabamba. WTD 3/71.

37141—ITALY—Automobile electrical replacement parts. Temperani, Bianca (importer, agent, wholesaler), 8-10 Via Guido Monaco, 50144 Florence. WTD 3/71.

37141—VIET-NAM — Automotive parts, accessories. A Son (Montasie Representative) (agent), 66-A Cong Ly, Saigon. WTD 4/70.

Aircraft, parts

37291—SWITZERLAND—Aircraft parts, auxiliary equipment; aircraft hardware of all kinds. Chemetron SA, Attn. Georg Westermann (agent), Bleicherweg 7, 8002 Zurich. WTD in prep.

Engineering, laboratory, scientific, research instruments

38111—SWITZERLAND—Aircraft flight, nautical, navigational instruments; similar equipment such as automatic pilots, simulators, etc. Chemetron SA, Attn: Georg Westermann (agent), Bleicherweg 7, 8002 Zurich. WTD in prep.

Instruments for measuring, controlling, indicating physical characteristics

38210 — SWITZERLAND — Industrial process control instruments; measuring and controlling instruments, all kinds. Dumaco AG, Attn: Mr. Manta, Jr. (dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 7/70.

Surgical, medical, dental instruments

38423—JAMAICA—Personal safety, fire equipment, especially eyewear, goggles, spectacles, faceshields, respirators. Jamaica Fire Equipment Co., G. P. Heholt, Dir. (importer, retailer), 16 Hagley Park Rd., Kingston 10. WTD in prep.

Photographic equipment, supplies

38614 — SWITZERLAND — Advanced microfilming, micrographic equipment, such as computer output microfilm systems, retrieval devices. Allorgan AG, Attn: H. B. Wallimann (dist., retailer), General-Guisan-Strasse 52, 5001 Aarau. WTD 4/71.

Jewelry, silverware, plated ware

39140—SWEDEN—Knives, forks, spoons; carving knives, AB August Hall (importer, dist.), S-342 00 Alvesta. WTD 4/71.

Toys, amusement, sporting goods

39410 — YUGOSLAVIA — Games, toys, mechanical and nonmechanical, of any material. Union-Impex (importer, agent), P.p. 277, Attn: Ljubo Kulic, Dir. Gen., 71001 Sarajevo. WTD 4/70.

39490—SWEDEN—Sporting, fishing articles. AB August Hall (importer, dist.), S-342 00 Alvesta. WTD 4/71.

Manufacturing industries

39991—THAILAND—Fire extinguishing equipment, parts, chemicals and related. Requests catalogs, c.i.f. Bangkok prices. Exclusive agency. Device Trading Ltd. Partnership (importer, dist.), 222/11-12 Larn Luang Rd., Bangkok. WTD in prep.

Other Foreign Official Tenders

ARGENTINA—An Argentine-Paraguayan Technical Commission for the construction of the Yacireta-Apipe Dam and Hydroelectric Complex invites proposals for a feasibility study. The tender is open to firms of both countries and firms with a 50 percent association in either country. The deadline is June 1. Copies of conditions are available for $250 from the Comision Mixta Tecnica Paraguayo-Argentina, Avenida R.S. Pena 501, Buenos Aires.

BURMA—Myanma Oil Corp. published tender dated Apr. 2 for drilling three to four exploratory wells in the Gulf of Martaban. Bid deadline June 15. Copies of tender documents available on short term loan from General Industries Div., BDC-566, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4317).

CEYLON—The Chairman, Tender Board, Mahaweli Development Board, Government of Ceylon, No. 11, Jawatte Rd., Colombo 5, invites construction contractors to prequalify for bids on the construction of the Bowatenna Diversion Unit of Project I of Phase I of the Mahaweli Ganga Development. Tenders are expected to be called in August. Contractors should forward their applications by June 1. Additional details on the project and lists of the prequalification data required are available from the Construction & Engineering Division, BDC-556, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-3602), and the Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

COLOMBIA—The Empresa de Acueducto y Alcantarillado de Bogota, D. E. (Bogota Waterworks & Sewer Co.) requests bids on four tunnels and complementary work to convey water to Bogota from the future Chuza and Chingaza Reservoirs. Plan 1) construction of the Palacio Tunnel—Rio Blanco, 28.5 km., including well, sluice gate chamber, and other metal items, plus small dam and a canal for deviation of the Simaya Gulch. Plan II) construction of the work comprised in Plan I and construction of the Siberia Tunnel, 2.2 km. Plan III) construction of the Guatiquia Tunnel, 3.2 km. Bidders may present offers for Plan I or Plan II, or for both Plans II and III. Bid documents may be consulted and acquired at the Direccion del Plan Maestro de Acueducto, Carrera 40, No. 22-B-60, Office 302, Bogota. Submit personally or by representative at the aforementioned office before July 5. Each complete set of bid documents, Volumes I, II and III and Appendix is $500; additional sets $150. Enclose a certified check from: Plan Maestro de Acueductor, Apartado Aereo 4426, Bogota.

ETHIOPIA—The Imperial Board of Telecommunications issued Tender No. 6/71 for the supply of open wire carrier equipment. Bid deadline June 9. Bid should offer 12 systems CCITT 12-channel carrier and should be accompanied by a bid bond of $3,200. Copies of tender announcement and specifications are available from the IBTE, P.O. Box 1047, Addis Ababa, for $3.80 per set plus $3.30 per

mail charges, or on a short term loan basis to firms located in the U.S. from the Communications Div., BDC-643, Rm. 4209, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4823).

GREECE—The Ministry of Commerce, 4th State Purchase, Directorate, issued Tender No. 4/94/71 for the supply and installation of a VHF FM 15 kw. transmitter. Bid deadline is May 14. Bid should offer one VHF FM-radio transmitter to stereophonic transmission, frequency range 88-105 MHw, ERP 15 kw., complete with accessories and test equipment. Copies of tender announcement and specifications are available from the Ministry of Commerce, 4th State Purchases Directorate, 75 Solonos St., Athens, or on a short-term loan to firms located in the U.S. from the Communications Div., BDC-643, Rm. 4209, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4823).

GREECE—The Ministry of Commerce issued Tender No. 4/92/1971 for the supply of telecommunications equipment. Bid deadline is May 10. Bid should offer a) a VHF radio communications system (154-174 Mhz) b) a radio link system (890-960 Mhz). Copies of tender announcement and specifications are available from the Ministry of Commerce, 4th State Purchases Directorate, 75 Solonos St., Athens, or on a short-term loan to firms located in the U.S. from the Communications Div., BDC-643, Rm. 4320, Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4823).

GREECE—The Ministry of Commerce, 4th Directorate of State Purchases, issued Tender No. 4/174/71 for the supply of three echo sounders. Bid deadline is May 31. Copies of tender announcement and specifications are available from the Ministry of Commerce, 4th Directorate of State Purchases, 75 Solonos St., Athens, or on a short-term loan to firms located in the U.S. from the Communications Div., BDC-562, Rm. 4320, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4823).

KENYA—The Government of Kenya, Ministry of Works, Central Tender Board, invites tenders for the following estimated quantities of water pipe, valves and fittings: P.V.C. piping, to B.S.S. 3505, Class B,C,D, or E, acceptable equivalent, 831,190 meters of various sizes; A.C. piping, to B.S.S. 486, Class B,C, and D, acceptable equivalent, 39,930 meters, various sizes; galvanized steel, to B.S.S. 1387 and/or ductible iron pipe Class M and HVY or acceptable equivalent, 15,080 meters, various sizes. Net duty paid prices should be stated for delivery to the Ministry of Works, Liverpool Rd., Nairobi. Bids due 9 a.m. May 21. Documents from the Chief Purchasing Officer, Ministry of Works, P.O. Box 30346, Nairobi.

SINGAPORE — The General Manager, Singapore Telephone Board, issued Tender No. P1/3210A/MR for the supply of data modem equipment. Bid deadline May 11. Copies of tender announcement and specifications are available from the General Manager, Singapore Telephone Board, Telephone House, Hill St., Singapore 6, or on a short-term loan to firms located in the U.S. from the Communications Div., Dept. of Commerce, BDC-643, Rm. 4320, Washington, D.C. 20230 ★(202-967-4823).

TUNISIA — The Tunisian Ministry of Public Works and Housing plans to issue the following two calls for bids to companies in IBRD member countries and Switzerland: 1) the construction, repair, and widening of 350 km. of road; 2) rebuild and repair 49 bridges. Write to the Ministere des Travaux Publics et de l'Habitat, Direction des Ponts et Chausses, Cite Jardin Tunis, Tunisia. Those that qualify will be allowed to participate in the calls for tenders. Correspondence is preferred in French. Copies of the official notice, in French, are available from the Dept. of Commerce, BDC-645, Washington, D.C. 20230 ★(202-967-3602), and the Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5864).

TURKEY—The Petrol OFISI Genel Mudurlugu, Muhaberat Ve Arsiv Sube Mudurlugu, Adakale Sokak, Ankara, issued a tender for a teletype network of five stations, one terminal. Bid deadline is May 17. Tender and specs from Modern Translation Bureau, Karanfil Sokak 49/1, Ankara, for $6.

Austrian Supplier Seeks U.S. Goods For East Europe

A Vienna firm is interested in U.S. suppliers of various products for Eastern Europe. Products include grinding machines; lathes; gear pumps; machinery for manufacture of offset plates; machinery for battery factory. Additional listings available from firm.

Contact: Dr. Klupp, Walfischgasse 1, A-1010 Vienna; cable address Kluppexport Wien. WTD in prep.

Future Construction Abroad

AUSTRALIA—Milbank Property Investment Pty. Ltd. has lodged a development application for a $16.8 million **shopping complex** to be built in Wollongong, N.S.W. (50 miles south of Sydney). This is the largest project of its type to be built in a non-capital Australian city. The complex is planned around a two level internal court.

CANADA—Preliminary plans have been completed for the construction in Port Coquitlam, B.C., of a **92-unit apartment building** costing over $1.2 million. Construction of this project is expected to begin in May. Firms making inquiries on this project are also invited to obtain information on **medium and long-term construction plans throughout British Columbia of 7,000 apartment units.** U.S. suppliers interested in the above apartment projects should write to: Norman Hullah, Pres., N. W. Hullah Corp. Ltd., 2906 Westlynn Shopping Centre, North Vancouver, B.C.

CANADA—A $1.7 million, three-story **shopping mall** with two underground parking levels are being planned for the Chinatown area of Vancouver. A second phase, an $8 million, **29-story hotel** is also planned for that area. Prospective bidders include price lists if possible on the following supplies: heating equipment; plumbing supplies; metal sidings; bricks; elevators; escalators; ornamental iron works; spiral staircase; fire protection equipment; roofing materials; metal-sash windows; doors; door hardware; floor coverings. Write: Roy Lisogar, Pres., Lisogar Construction Ltd., General Contractors, 4550 Fraser St., Vancouver 10, British Columbia.

CANADA—A $1.2 million **senior citizens' housing project** consisting of a seven-story reinforced concrete building with 142 single rooms is planned for Richmond. The following supplies and equipment are required: large sand-fill preload; masonry; concrete; dry wall construction; aluminum windows; plumbing; heating; flooring of vinyl, asbestos, tile; kitchen installations. Write: Mr. K. Russcher, Architect, Russcher Hanson & Assoc., 405 North Rd., Rd., Coquitlam, B.C.

CANADA—Working drawings are nearing completion on the $10 million, 10-story **Sea Island Hotel** at Richmond, B.C. U.S. firms interested in bidding on supplies and equipment for the new hotel should be sent to Gordon Thorpe, Branch Manager, Hashman Construction Ltd., 1075 Melville St., Vancouver, British Columbia.

CANADA—MacMillan Bloedel Ltd. announced the formation of a **water pollution control program** at its Harmac Pulp Div. which will cost the company over $2.6 million. Major units in this program include: 1) a clarifier 30 to 35 feet in diameter in the recausticizing area to remove solids from mill effluent; 2) a 60-foot diameter clarifier to capture boiler fly-ash and solids from the woodroom; 3) a 50-foot diameter foam tank which will collect and break down stable foam and a 600-foot long diffuser system which will dilute and disperse the treated effluent; 4) a spill collection system at the screen room and bleach plant to capture fibres and recycle them; 5) equipment to remove lime sludge from the bleach chemical preparation plant effluent and recycle the materials. Write: Jack Graham, Manager of Purchasing, MacMillan Bloedel Ltd., 1075 West Georgia St., Vancouver 5, British Columbia, with a copy to Norman Walton, the company's Chief Engineer, at the same address.

FRANCE—La Societe du Caoutchouc Butyl (SOCABU) will build the first **ethylene-propylene rubber plant** in France at Notre-Dame-de-Gravechon. The plant will be designed to produce 30,000 tons/year with a possibility for expansion to 45,000 tons/year. Production is scheduled to start at the end of 1972. A turnkey contract has been awarded to Compagnie Francaise d'Etudes et de Construction Technip, 232 Ave. Napoleon-Bonaparte, 92 Rueil-Malmaison, France.

FRANCE—The Societe Generale, a large French commercial bank with 1,400 branches in France, now includes its central data processing center in its headquarters complex at 10 Place Edouard VII, Paris 9. The bank now plans to **construct five regional data processing centers.** Indications are that these will be in Bordeaux, Lille, Lyon, Marseille and Nice. The central data processing center of the bank now under way in Paris, at the Place de Trocadero, will be completed in 1971 and will have a central air-conditioning system rated at 2,000,000 frig/H (3-5 tons in U.S. specifications). Information on plans for air-conditioning installa-

tions are available from M. Andre Verna, Chief Engineer, Societe Generale, 10 Place Edouard VII, Paris 9. Information relating to the EDP aspects of these projects may be obtained from M. Lhermitte, Special Assistant to the President and Director General of the Societe Generale for data processing, 29 Blvd. Haussman, Paris 9.

FRANCE — The Novotel Hotel/Motel chain is planning new facilities for: Belguim—Antwerp, Brussels, Liege. France—Tourcoing, Valenciennes, Amiens, Reims, Nancy, Angers, Lyon, Saint-Etienne, Nice, Nimes, Pau. Switzerland—Neuchatel, Lausanne. All will be air-conditioned with associated covered and heated swimming pools, restaurants using the latest techniques in institutional feeding (infra-red ovens for food warming, for example) bars, grill rooms, and conference rooms. Write: Jean-Paul Dubrulle, Pres., Dir. Gen., S.I.E.H., Autoroute A-6, 91-Evry, France and Mr. A. Dewavrin, Service Exploitations (Director of Development), S.I.E.H., Autoroute A-6, 91-Evry.

GERMANY—Following the announced construction of a nuclear power plant in Neckarwestheim, Baden-Wuerttemberg's largest power suppliers Energie-Versorgung Schwaben AG in Stuttgart and Badenwerk AG, Karlsruhe have revealed the construction of another **nuclear power plant** in that area. The two companies, through their subsidiary Kernkraftwerk Philippsburg (KKP), have started building the first unit of a nuclear plant of 860-megawatt in Philippsburg/Rhine and have approved the construction of a second 860-megawatt unit at this location. KKP will build and operate the project, while Kraftwerk Union AG, 4330 Muelheim, Wiesenstrasse 35, Germany, will function as general contractor for both units, known as Philippsburg I and II. KKP estimates a financial outlay of $150-$165 million for each unit. The first unit of this hot water reactor will be completed in the fall of 1974, while the second unit is scheduled for test operations in 1977. A spokesman for Energie-Versorgung Schwaben AG informed the Consulate General that although Kraftwerk Union is the general contractor there may be opportunities for U.S. suppliers of instruments and accessories. Interested U.S. firms should contact Kraftwerk Union.

GERMANY—A plan for a **trade and industry center** to be built 500 meters from the central railway station has been announced. The 217,000 square meter area is owned by the city of Hamburg and the Federal Railway. The plan includes 16 multi-story building-towers of different heights providing office space for 20,000 persons, and combining industry and trade enterprises, shipping companies and airlines, consulates and other governmental facilities. The cost is estimated at DM 1 billion. Architects and enterprises combined in the working group "Hansa-Center" are: Deutsche Haus-Boden GmbH; the architects Dr. Matthaei, Elschner and Fischer, von Bassewitz (Hamburg), and Eller, Moser, Walter and Partners (Duesseldorf); and the engineering firms Philipp Holzmann AG (Frankfurt/Hamburg), and Imbau (Leverkusen).

JAMAICA—More and more **apartment structures** are being constructed in Jamaica. A Foreign Service report covering six such developments is available from the Dept. of Commerce, Business Opportunities Staff BOS-580, Washington, D.C. 20230.

Quarterly Summary Listing Future Construction Projects Overseas Now Available

A quarterly summary of future construction projects abroad, contract award stories and significant foreign government tenders published in *Commerce Today* and Commerce Business Daily during January, February, and March 1971, is available to U.S. firms from Business Opportunities Staff, BDC-580, Department of Commerce, Washington, D.C. 20230. A pre-addressed mailing label should be included with the request.

The summary, which may also be reviewed at any of the 42 Commerce Field Offices, alphabetically lists project summaries by country in five distinct classes: airport, seaport, railroad and highway projects; hydro and thermal electric plant and irrigation projects; hospital, hotel and housing projects; industrial plant projects; and comprehensive development projects. Whenever possible, names of contractors and responsible agencies are cited, as well as original publication dates.

A limited number of copies of the fourth quarter 1970 summary is also available on a first-come basis.

Visiting Buyers And Officials

ARGENTINA—Tomas Breitman, Pres., Casa Raudo S.A.C.I.F. eI., Sunchales 702, Buenos Aires, **interested in contacting exporters of chrome-plated automobile accessories: horns, rear view mirrors, headlight assemblies, etc.; importers of radiator grills, mouldings, trimmings, taillights, fender assemblies for 1925-1951 model cars; dealers and direct buyers of antique cars.** April 30 via New York for 2 mos. c/o David Kreimer, 1160 Ogden Dr., Apt. 101, Los Angeles, Calif. 90046. Itinerary: New York, Detroit, Chicago, Los Angeles. WTD in prep.

AUSTRALIA—George L. W. Kidman, Wilke & Co. Ltd., 47-29 Browns Rd., Clayton, Victoria 3168, **interested in meeting with publishers of magazines and books.** May 7 via Los Angeles for 6 weeks. c/o New York Hilton, 1135 Ave. of the Americas, New York, N.Y. 10019. Itinerary: Los Angeles, San Francisco, New York, Chicago, cities in Kansas. WTD in prep.

AUSTRALIA—R. E. Roeder, Works Manager, Southern Cross Porcelain Co. Pty. Ltd., 1353 North Rd., Huntingdale, Melbourne, **interested in purchasing new equipment for making procelain for the electrical trade, high tension insulators, other technical ceramics and discussing the possibility of acting as Australian agent.** May 10 via New York for 9 days. c/o Algonquin Hotel, 59 W. 44th St., New York, N.Y. 10036. Itinerary: New York; Easton, Pa; cities in New Jersey; Philadelphia; Plymouth, Ohio. WTD in prep.

CHILE—Archibald Mehech, representing Mehech Hnos. Cia. Ltda., Vitacura 2906 (La Portada), **interested in importing towels and exporting wool wearing apparel, cotton threads and yarns and requesting technical information.** April 15 via New York for 90 days. c/o 7924 Ridge Blvd., Brooklyn, N.Y. 11209, (748-3578). Itinerary: New York. WTD in prep.

FRANCE—Louis Jacques Valla, Pres., Alimentation des Foyers du Batiment et des Metaux, 16 rue du Platre, 75 Paris 4e, **interested in catering equipment mainly for use on building sites.** May 6/7 via New York for 15 days. c/o Summit Hotel, 51st St. & Lexington Ave., New York, N.Y. 10022. Itinerary: New York, Washington, D.C., Chicago. WTD in prep.

FRANCE—Jack Meyer, Gen. Mgr., Entreprise Meyer & Chibout, 40 rue de Sevigne, 75 Paris 3c, and Jean Louis Chaigne, Gen. Mgr., Societe Chaigne & Co., 70 av. Raspail, 94 Gentilly, **interested in industrial and commercial air conditioning and refrigeration.** May 1 via New York for 15 days. c/o New York Hilton, 1335 Ave. of the Americas, New York, N.Y. 10019. Itinerary: New York. WTD in prep.

INDIA—K. C. Shah, Man. Dir., Platewell Processes Pvt. Ltd., K. C. Chemicals Pvt. Ltd., and Pankaj Trade Enterprises Pvt. Ltd., 507 Kakad Chambers, A Besant Rd., Bombay 18, **interested in manufacturers of automatic glass bottle making machinery for various sizes and in technical know-how in the metal finishing process and equipment field.** 1st week May via New York for 4-6 weeks. c/o Pankaj Shah, Austin-Peay D-210 R, Martin, Tenn. 38237 or c/o Kamlesh Shah, 166-40 89th Ave., Apt. 4K, Jamaica, N.Y. 11432. Itinerary: New York, Freeport, Brooklyn, N.Y.; Canton, Newton, Springfield, Mass.; Bristol, Greenwich, Hartford, Meriden, Rockville, Waterbury, Conn.; Nutley, Atlantic City, N.J.; Philadelphia; Cleveland; South Bend, Ind.; Detroit; Madison, Wis.; St. Paul; Chicago; Panama City, Fla.; Berkeley and Santa Ana, Calif. WTD in prep.

ISRAEL—Israel Lachman, Mgr., Lachman Ltd., P.O. Box 8024, Haifa, **interested in making new contacts with manufacturers of engineering, instrumentation, electronics equipment, related industrial products with view of establishing representations;** may consider some purchases on trial basis. May 1 via New York for 2 weeks. c/o Mr. Mittelman, 147-26 68th Ave., Flushing, N.Y. 11367. Itinerary: New York; Michigan City, Ind., cities in N.J., Philadelphia, others as required. WTD in prep.

TAIWAN—T. H. Chen, Mgr., Yih Sheng Trading Co., Ltd., 46-3 Tai Yuan Rd., Taipei, **interested in importing U.S. day-old chicks, medicines for veterinary use, aluminum slats for venetian blinds.** May 5 via San Francisco for 1 mo. c/o 2823 Columbia Ave., Lancaster, Pa. 17603. Itinerary: Miami, New York, Englewood Cliffs and Hoboken, N.J., Baltimore, San Francisco. WTD 2/69 under revision.

UGANDA—Abdul J. Shamji, Comba Motors Ltd., P.O. Box 1272, Kampala, **interested in representing manufacturers of motor vehicles.** May 5 via Los Angeles or New York for 15 days. c/o 16440 Sloan Dr., Tarzana, Calif. 91356. Itinerary: Los Angeles, New York, possibly Washington, D.C. and Philadelphia. WTD 7/69.

Calendar For World Traders

May 5—Kansas City—Export documentation workshop, Commerce Field Office, 2-4 p.m.

May 6—Dubuque—Fourth Eastern Iowa Foreign Trade luncheon, Julian Motor Inn, noon. Sponsors: REEC, Chamber of Commerce, Des Moines Field Office.

May 11—Chicago—Export seminar, Field Office.

May 11—Omaha—Meeting for exporters, Ross' Steak House, 7 p.m. Sponsors: Midwest International Traders, Kansas City Field Office.

May 12—Dallas—Meeting on Financing and insuring exports, Field Office, 2 p.m.

May 12—Fort Worth—Meeting on financing and insuring exports, Chamber of Commerce, 9 a.m.

May 12—New York—FCIB Publishers Export Credit Group dinner meeting, Advertising Club, 4 p.m.

May 13—Atlanta—Export seminar, 10 a.m., Field Office.

May 13—Austin—Meeting on financing and insuring sales abroad, Chamber of Commerce.

May 13—Fort Wayne—Export seminar, Chamber of Commerce.

May 13—New York—Overseas Automotive Club luncheon & meeting, Summit Hotel.

May 13—San Francisco—Export luncheon on "The Need for Extending California's World Trade Frontiers," Mark Hopkins Hotel.

May 17—Birmingham—World Trade Week luncheon, Parliament House Motor Hotel. Sponsors: Alabama World Trade Club and Alabama Transportation Club.

May 17—Atlanta—Port of Antwerp Day, Regency Hyatt House. Sponsor: Georgia Dept. of Industry & Trade.

May 17—Cincinnati—World Trade Club luncheon meeting, Holiday Inn, noon.

May 17—Jackson, Miss.—Rotary Club meeting on "World Trade and Mississippi," and a dinner meeting of the International Trade Club of Mississippi, at Primos Northgate, 7 p.m.

May 17—New York—World Trade Day luncheon, Hotel Plaza, noon.

May 17—Washington, Pa.—World Trade Day luncheon sponsored by the Chamber of Commerce, Ramada Inn, noon.

May 17-18—New York—American Management Assn. briefing on "European Taxes on U.S. Business," AMA headquarters.

May 18—Erie—World Trade Day luncheon sponsored by the Chamber of Commerce, Serafini's Restaurant, noon.

May 18—High Point, N.C.—Joint meeting of the Metrolina World Trade Club, Triad World Trade Club, and Triangle World Trade Club, Top of the Mart.

May 18—Kansas City—World Trade Week luncheon, Top Of The Tower, noon.

May 18—Los Angeles—Seminar on "How to Export," City Hall. Sponsors: Export Managers Assn. and Mayor's Economic Dev. Board.

May 18-19—Los Angeles—West Coast International Licensing Show, Occidental Center.

May 19—Beaver Falls, Pa.—World Trade Day luncheon sponsored by the Chamber of Commerce, Holiday Inn.

May 19—Chicago—Midwest Credit Management Assn. meeting, Bismarck Hotel. Speaker: Bernard Cahill, BIC.

May 19—Indianapolis—Export seminar sponsored by Indiana Dept. of Commerce, Stouffer's Inn, 8 a.m.-4 p.m.

May 19—King's Point, N.Y.—World Trade Week luncheon of the World Trade Club of Long Island. U.S. Merchant Marine Academy.

May 19—Los Angeles—Business conference on trade, Room 350, City Hall, 2:30 p.m. Speaker: Harold B. Scott, Director, BIC. Sponsor: Export Managers Assn.

May 19—Memphis—All-day trade conference at Holiday Inn-Rivermont. Sponsors: World Trade Club, World Trade Council of Chamber of Commerce.

May 19—New Orleans—World Trade Week luncheon, Plimsoll Club, International Trade Mart. Sponsor: World Trade Club.

May 19—Newark—New Jersey World Trade Day luncheon. Robert Treat Hotel, noon.

May 20—Atlanta—All-day World Trade Day observance, American Hotel, sponsored by: Georgia International Trade Assn., World Trade Council of the Atlanta Chamber of Commerce.

May 20—Chicago—World Trade Week dinner, Pick Congress Hotel, 7 p.m. Sponsors: Int'l. Trade Club of Chicago, Illinois Manufacturers Assn., Chicago Assn. of Commerce and Industry.

May 20—Greensburg, Pa.—World Trade Day luncheon sponsored by the Chamber of Commerce, Greengate Mall.

May 20—Hickory, N.C.—Export-import symposium, Chamber of Commerce.

May 20—Kansas City—World Trade Week dinner, Plaza Inn, 6:30 p.m.

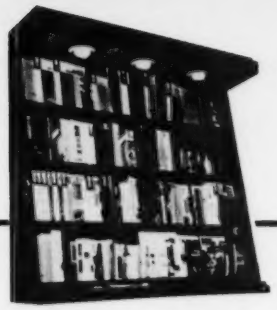
May 20—Little Rock—All-day floating workshop aboard the riverboat *Border Star*. Sponsor: Memphis Field Office.

May 20—Los Angeles—45th annual World Trade Week luncheon of the Foreign Trade Assn. of Southern California, Biltmore Bowl, Biltmore Hotel. Speaker: Sec. of Commerce Maurice H. Stans.

May 20—Philadelphia—World Trade Week luncheon, sponsored by the Mayor's Committee for World Trade Week.

May 20—Pittsburgh—World Trade Day luncheon, William Penn Hotel, 12:15.

May 21—Dayton—Sixth Annual Ohio Valley International Trade Conference, Imperial House South.



New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington D.C. 20230, or to any of its field offices.

OFFICE OF THE SECRETARY

National Industrial Pollution Control Council

Wastewater reclamation. 35pp. 30¢.

DOMESTIC AND INTERNATIONAL BUSINESS

Bureau of Domestic Commerce

Construction review. Feb./Mar. Vol. 17, No. 2-3. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 55¢.

Marketing information guide. A monthly annotated bibliography. April 1971. Vol. 18, No. 4. Annual subscription $4.50 ($1.25 more for foreign mailing). Single copy 40¢.

World motor vehicle production & registration, 1969-70. 8 pp. 10¢

Bureau of International Commerce

Export control bulletin—supplement to Export control regulations. Nos. 39 & 40. 25¢ apiece.

A summary of U.S. export control regulations. Revised Feb. 18, 1971. 25pp. 25¢.

Foreign Economic Trends. Annual subscription $15. ($6 more for foreign mailing). Single copy 10¢.

Brazil (ET 71-014). 12 pp.
Australia (ET 71-016). 10pp.
Venezuela (ET 71-017). 12pp.
Philippines (ET 71-018). 10 pp.
Uruguay (ET 71-019). 8pp.
Thailand (ET 71-020). 12pp.
China (Taiwan) (ET 71-021). 12pp.
Luxembourg (ET 71-022). 8pp.

ECONOMIC AFFAIRS

Office of Business Economics

Survey of current business. Vol. 51, No. 3. March 1971. Annual subscription $9 ($3.75 more for foreign mailing). Single copy $1.

Bureau of the Census

Small-area data notes. March 1971. Vol. 6, No. 3. 12pp. 10¢.

Congressional District Data: Districts of the 92d Congress:
New Jersey (CDD-92-27). 8pp. 25¢.
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Report on cotton ginnings for the crop of 1970, by counties (A20: 70-6). 8pp 10¢.

Construction and Housing

Value of new construction put in place: February 1971 (C30-71-2). April 1971. Annual subscription $1.50, includes monthly and annual supplement. Single copy 10¢.

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Sales of new one-family homes: fourth quarter 1969 through fourth quarter 1970 (C-25-70-Q4). Annual subscription (including monthly, quarterly, and annual reports), $3.

Housing completions: December 1970 (C22-70-12). Annual subscription $1.

Housing vacancies (Series H-111, No. 63, Part II). March 1971. Annual subscription (Series H-111 and H-121, combined) $1.50 (50¢ additional for foreign mailing). Single copy 50¢.

Distribution and Services

Weekly retail sales. Estimated sales of U.S. retail stores, week ending Apr. 3 (CB 71-318). 2pp 10¢.

Weekly retail sales. Estimated sales of U.S. retail stores in the week ending Apr. 10 (CB 71-321). 2pp. 10¢

Monthly wholesale trade report: February. (CB-71-325). 2pp.

Monthly retail trade report: February. (CB-71-326). 2pp.

Monthly department store sales in selected areas: January. (BD-71-1). Annual subscription $1. Single copy 10¢.

1967 Census of Business

Selective Services—Miscellaneous subjects (BC 67-SS3). 106pp. $1.

Wholesale Trade—Subject Reports. Miscellaneous subjects (BC 67-WS8). 150pp. $1.50.

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Highlights of exports and imports: February 1971 (FT 990-71-2). Annual subscription $5 ($1.25 more for foreign mailing). Single copy 45¢.

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Public employment in 1970 (GE70 No. 1). 38pp. 40¢.

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1967 Census of Mineral Industries

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1970 Census of Population and Housing. General Demographic Trends for Metropolitan Areas, 1960 to 1970—Final Reports
Vermont (PHC(2)-47). 16pp. 10¢.
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Current Population Reports: Educational attainment in 30 selected standard metropolitan statistical areas: 1969 (Series P-20, No. 219). 14 pp. 15¢.

Ethnic origin and educational attainment: November 1969 (Series: p-20, No. 220). 10pp. 15¢.

ECONOMIC DEVELOPMENT ADMINISTRATION

Economic development April 1971. Vol. 8, No. 4. Annual subscription $1 (50¢ more for foreign mailing). Single copy 15¢.

SCIENCE AND TECHNOLOGY

National Oceanic and Atmospheric Administration

The NOAA research flight facility's airborne data collection program in support of the Barbados oceanographic and meteorological experiment of 1969 (NOAA TR ERL 198-RFF 4). 190pp. $1.50.

National Bureau of Standards

Mathematical sciences—section B of the Journal of Research of the National Bureau of Standards. Oct.-Dec. 1970. Volume 74B, No. 4. Subscription price: $5 a year; $1.25 more for foreign mailing.

Physics and chemistry—section A of the journal of research of the National Bureau of Standards. Jan.-Feb. 1971. Volume 75A, No. 1. Subscription price: $9.50 a year; $2.25 more for foreign mailing. Single copy price varies. This issue $1.25.

Federal information processing standards index (FIPS PUB 12). 143pp. $1.50. This publication provides material concerning standardization activities in the area of information processing at the Federal, National and International levels.

Selected values of chemical thermodynamic properties—tables for elements 54 through 61 in the standard order of arrangement (Tech. Note 270-5). 49pp. 55¢. This publication contains tables of values for the standard heats and Gibbs (free) energies of formation, entropies and enthalpies at 298.15 K and heats of formation at O K for compounds of vanadium, niobium, tantalum, titanium, zirconium, scandium, hafnium and yttrium. These tables are a continuation of the comprehensive revision of NBS Circular 500.

Hurricane Camille—August 1969 (Tech. Note 569). 71pp. 70¢.

A forecast of air travel demand and airport and airway use in 1980 (AD-720 732). Center for Naval Analyses, Arlington, Va. 44pp. Forecasts demand for air travel between 581 pairs of domestic cities.

NHSB Thesaurus of traffic and motor vehicle traffic and motor vehicle safety terms (PB-197 970). National Highway Safety Bureau, Washington, D.C. 136pp.

National Marine Fisheries Service

Frozen fishery products—1970 (NOAA XCFSA-5525 FF). Annual summary. 17pp. Free upon request.

Canned fishery products—1970 (NOAA ZCFSA-5560 MF-1). Annual summary. 17pp. Free upon request.

Industrial fishery products—1970 (NOAA XCFSA-5561 MF-2). Annual summary. 9pp. Free upon request.

Packaged fishery products—1970 (NOAA XCFSA-5562 MF-3). Annual summary. 5pp. Free upon request.

National Ocean Survey

Great Lakes pilot 1971. 633pp. For sale only by the Lake Survey Center, 630 Federal Building and U.S. Courthouse, Detroit, Mich. 48226—Price $3.25 including supplements. This is a complete revision.

Office of Telecommunications

Ionospheric prediction for June 1971. No. 99. Issued March 1971. Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 25¢. These predictions are issued monthly as an aid in determining the best sky-wave frequencies over any transmission path, at any time of day, for average conditions for the month.

The wave-hop fields for an inclined dipole over a spherical earth with an anisotropic ionosphere (OT/ITSRR 5). October 1970.

National Technical Information Service

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

Title-author-company index to reports published by the U.S. Department of the Interior, Office of Saline Water (ORNL-NDIC-8). Oak Ridge National Lab. for AEC. 86pp.

Privacy and security in data banks (AD-718 406). Univ. of Texas, Austin, for the Air Force. 120pp. Discusses basic protection methods (static and dynamic), components of a secure data bank, and the status of security-oriented systems.

Technology assessment and environmental engineering (PB-197 687). George Washington Univ., for the National Science Foundation. 23pp. Discusses the role of environmental engineering in resolving the nation's social problems.

Managing for effectiveness in research organizations (AD-718 820). Univ. of Minnesota, for the Navy. 27pp.

Information and its retrieval (AD-718 032). U.S. Army's Aberdeen Research & Development Center. 59pp.

A survey of fuel and energy information sources, Vol. I (PB-197 386). Mitre Corp. for the National Air Pollution Control Admin. 298pp.

Same title, Part II (PB-197 387). 631pp. $9 paper, 95¢ microfiche.

Small Business Guidance and Development Center (COM-71-00137). By Howard Univ. for the Economic Development Admin. 102pp. Reviews the university's Small Business Guidance and Development Center's role in expanding employment opportunities for minority-owned firms and in helping to improve business conditions in the inner city.

Poor persons in the labor force: a universe of need (PB-196 742). By National Planning Assn. for the Manpower Admin. 211pp.

Structural and socio-economic factors of commuting (PB-196 792). By Georgia Tech for the Urban Mass Transportation Admin. 113pp.

A move to home ownership (PB-196 720). San Francisco Development Fund for HUD. 104pp. Describes an experiment to improve the abilities of a selected segment of lower income families to participate in the home purchase market.

New housing concepts (PB-196 902). By the NAACP for HUD. 102pp. Discusses European industrialized housing systems and new towns.

The risk of carcinogenesis from long-term, low-dose exposure to pollution emitted by fossil-fueled power plants (UCRL-50937). Lawrence Radiation Lab for the AEC. 17pp.

Compilation of national and international nuclear standards (excluding U.S. activities) 6th ed. (ORNL-NSIC-78). By Oak Ridge National Lab for the AEC. 125pp.

Feasibility study of new sulfur oxide central processes for application to smelters and power plants, Part I: The Monsanto Cat-Ox process for application to smelter gases (PB-197 166). By Stanford Researcth Institute for the National Air Pollution Control Admin. 57pp.

Same title, Part II: The Wellman-Lord SO_2 recovery process for application to smelter gases. (PB-197 167). 94pp.

Same title, Part III: The Monsanto Cat-Ox process for application to power plant flue gases. (PB-197 168). 71pp.

Same title, Part IV: The Wellman-Lord SO_2 recovery process for application to power plant flue gases. (PB-197 028). 76pp.

The urban movement of goods (PB-197 164). By the Consultative Group on Transportation Research of the Organization for Economic Cooperation and Development. 230pp. Proceedings of the third Technology Assessment Review. Discusses incremental transport improvements, radical transport improvements, and impact on planning.

British and American TACV system developments: technical and environmental factors (PB-196 980). By MITRE Corp. for Dept. of Transportation (OHSGT). 78pp. Outlines research programs being conducted and gives results of transportation planning studies. Environmental effects and prospects for a tracked air cushion vehicle system are discussed.

Air pollution control active research grants for fiscal 1970 (PB-196 410). By the Office of Research Grants, Research Triangle Park, N.C. for the National Air Pollution Control Admin. 58pp.

McNally Pittsburg Manufacturing Corp. of Pittsburg, Kan., has made the following studies for the National Air Pollution Control Admin.:

A study on the design and cost analysis of a prototype coal cleaning plant, parts I-VI (PB-196 631). 193pp; **Plant specifications,** part VII (PB-196 632), 127pp.; **Design drawings,** part VIII (PB-196 633), 40pp.; **Supplement** (PB-196 634), 14pp.

Profile study of air pollution control activities in foreign countries, first year report (PB-196 841). Esso Research and Engineering Co. for the National Air Pollution Control Admin. 810pp. Paper $9, microfiche 95¢. Covers air pollution control activities in Austria, Belgium, Switzerland, Denmark, France, Germany, Great Britain, Italy, Japan, Norway, Netherlands, Sweden, and the Soviet Union. Report discusses geography, current interests, proposed control programs, and time tables for meeting goals. Aims and functions, key personnel, and complete addresses are given for 19 international organizations.

Ground disposal of pesticides: the problem and criteria for guidelines (PB-197 144). By the Working Group on Pesticides, Washington. 62pp. Other studies by the same group include **Proceedings of the national working conference on pesticide disposal** (PB-197 145), 146pp; **Information available on disposal of surplus pesticides, empty containers and emergency situations** (PB-197 146), 58pp; **Summary of interim guidelines for disposal of surplus or waste pesticides and pesticide containers** (PB-197 147), 30pp.

Ecology and resource economics: an integration and application of theory to environmental dilemmas (ORNL-4641). By Oak Ridge National Lab. for AEC. 42pp. Uses hierarchical classification to develop a system linking relevant knowledge in economics and ecology.

Enforcing fair housing laws: apartments in white suburbia (PB-196 472). Rutgers Law School for the Dept. of Housing and Urban Development. 469pp. Paper $6, microfiche 95¢.

The roles of the states in solving urban problems (PB-196 347). By the Center for Urban Social Science Research, Rutgers U., for HUD. 583pp. Paperback $6, microfiche 95¢.

An economic study of the effect of municipal sewer surcharges on industrial wastes (PB-195 981). U. of Missouri (Rolla) for the Office of Water Resources Research. 133pp.

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